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ABSTRACT

Information on curriculum content, development, presentation, and evaluation in 10 countries is reviewed in this report. Reference materials were gathered from Japan, China, Thailand, Norway, Sweden, France, England and Wales, Scotland, Canada, and the United States. The materials from each country provide an understanding of the aims and philosophy behind curricular decision making, the management and control of curricular matters, the processes of curricular development, the curriculuar content, and the methods and results of curricular examination and assessment. Following a detailed analysis of each country's curricular characteristics, the authors summarize their findings for each of three geographic regions (Asia, Europe, and America), then present their essential conclusions. Eleven suggestions for improving the curriculum and curricular processes in the Australian state of Victoria conclude the text. A 120-item bibliography lists the source materials used. (PGD)

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Curriculum: An International Perspective

by L.W. Shears and J.K. Matthews

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EA 017 164

A Report to
The Honourable Robert Fordham M.P.
Minister of Education
Victoria
August 1984

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We wish to acknowledge with sincere thanks the direct and indirect contributions of the persons in Australia and overseas countries who were interviewed during the preparation of this report. We would like to thank Mrs Shears for her interpreting and secretarial assistance during the overseas visit and particulary to thank Mrs Marianne McKay, Personal Secretary to the Co-ordinator General of Education and Mrs Toni Tabet, our Stenographer for the many long hours they spent in the typing and preparation of the report. Once again, we appreciate the cooperation and efficiency of the Government Printer, Mr Frank Atkinson and his staff.

Rationale and Themes

Although questions about what children should be taught or what children should learn in our educational institutions have exercised the minds of teachers, politicians and parents for centuries, concern about "all" children has been limited, as access to education for the majority of the population has been available only recently. Some would say we have not achieved it in 1984! The phenomenon of mass education is basically one of the twentieth century. One of its results is a better educated society, a fact which has sharpened the debate on the content of education. Curriculum, its development, presentation and evaluation has become the subject of more reports than any other aspect of education, no less in Australia than in any other country.

If in discussions, reporting and decision making on curriculum in Australia we are to avoid the dangers of isolation and parochialism we need access to the results of thinking and practice at the international level. This does not mean imitation or even adaptation for there are dangers to be avoided in both. There is however the possibility that a spark of creativity might be set alight for our content and processes by examining the thoughts and procedures of others.

Having collected the material, our first task was to consider how the statements from the countries which were visited and examined should be presented. A large quantity of material had been collected from Japan, China, Thailand, Norway, Sweden, France, England and Wales, Scotland, Canada and the USA. It could be presented under the headings of geographical location, viz Group one - Asia (Japan, China, Thailand), Group two - Europe (Norway, Sweden, France, England and Wales, Scotland) and Group Three - America (Canada, USA), or under the headings of the themes which appeared. In the latter case, there would be considerable repetition and the derivation of issues would be difficult. Another method would be to define issues such as centralized v decentralized management and control, general v vocational emphasis, core curriculum v diversification in content, external v internal evaluation and proceed to seek answers from the raw material. This would appear to be prejudging the issues before examining the material. Consequently the material is presented for three groups of countries.

- Asia - Japan, China, Thailand.
- Europe - Norway, Sweden, France, England and Wales, Scotland.
- America - Canada, USA.

As we proceeded it became clear that there were themes pervading the material which would provide a structure around which the material from each country could be presented. The themes are as follows:-

- Aims and philosophy
- Management and control
- Curriculum development
- Content
- Examinations and assessment

Finally we agreed that the issues which were delineated and the conclusions which were reached could form the basis for suggestions about procedures and practices in Victoria. These have been included.

CURRICULUM - AN INTERNATIONAL PERSPECTIVE

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JAPAN

Aims and Philosophy

1.01 Japan is a relatively homogeneous society which does not have significant cultural or ethnic differences. With few exceptions it is a community of one race speaking one language apart from local dialects. There are three major religions, Shintoism, Buddhism and Confucianism, all of which have co-existed harmoniously for centuries. The Japanese have a liberal attitude to religion and no serious religious conflicts or traditions of divisiveness on religious grounds. Religion is not taught in public schools. Harmony is highly respected in Japanese culture, as is diligence, frugality and respect for learning. More than lip-service is paid to these values and they are taken seriously in the provision of education. The school curriculum does not therefore have to address the problems of cultural diversity and conflicting values which are evident in some other countries.

1.02 The Basic Law of Education is the legal basis for Japan's post-war education system. Promulgated in 1947, this law lays down that the aims of education should be to fully develop personality and rear a mentally and physically wholesome people who will love truth and justice, esteem individual value, respect labour, have a sense of responsibility and be imbued with an independent spirit. The same law provides for equality of opportunity of access to education, co-education, prohibition of partisan political education and a ban on religious education in public schools. It prohibits any form of discrimination on the basis or race, creed, sex, social status, financial position or family origin. Japanese educators emphasize that school conditions should be equal right across the country and aim at the development of an education system which promotes a high standard of basic skills, cultural development and acceptance of the basic principles by which Japanese people live. Moral education is considered essential, and the Basic Law states that it should aim at cultivating the ability of pupils to apply the spirit of human respect in everyday life, at home, in school, and in other segments of society; to create a culture rich in individualilty; and to develop a democratic society and nation which will contribute to a peaceful international community.

1.03 The curriculum is revised approximately every 10 years. The last major revision, in 1976, described the principles underlying the curriculum as:

- to bring up children who are well balanced in intellect, morality and physical power, and full of humanity;
- to respect the automomy of individual schools so they may be enabled to develop their own distinctive character, and so that teachers may fully develop their originality in their classroom teaching;
- to review thoroughly the content of education offered in elementary and lower secondary schools and select curricula such that a basic educational grounding may be achieved. During the first year in upper secondary school a linkage is emphasized between the broad based general education offered by lower secondary schools and the more specialized fundamentals offered at the more advanced level. Students are then able to concentrate more fully on selected subjects, the selection being according to the ability and aptitude of each individual and within the framework of the curriculum of each upper secondary school.

Management and Control

1.04 The curriculum in Japan is centrally controlled. Curriculum for elementary, lower secondary and upper secondary schools is compiled and enforced pursuant to legislation. Curriculum content is organized in accordance with the Courses of Study prepared as curriculum standards by the Ministry of Education, Science and Culture (Mombusho), on the advice of the Advisory Curriculum Council, and in order to secure an optimum national level of education based on the principle of equality of educational opportunity.

1.05 The curriculum is revised every 10 years, but the changes are introduced at different times to the different levels of schooling. In 1973 the Minister for Education, Science and Culture referred the question of the curriculum to the Curriculum Council and received its recommendations in 1976. Based on the recommendations, courses for elementary and lower secondary schools were revised in 1977, and for upper secondary in 1978. The introduction of the recommended changes was preceded by 3 years of inservice activities. For this purpose, Japan was divided into 3 areas. A large scale Explanation Seminar was held for major officers of the prefectures and municipalities in these 3 areas. The officials then returned to their prefectures and established similar explanation seminars. In this manner the teachers were given a 3 year period to become accustomed to the changes. The altered curriculum was introduced into elementary schools in 1980, into lower secondary schools in 1981, and in upper secondary schools in 1982. Thus the process which was started in 1973 was finally implemented at varying dates in 1980, 1981 and 1982.

1.06 The Ministry of Education and prefectural and municipal Boards of Education request a number of elementary and secondary schools to carry out research on instructional methods and courses of study for periods of 1 or 2 years. These 'designated study schools' provide reports to the Ministry, and these are utilized in the revision of the national curriculum standards and prescribed courses of study.

1.07 The central control of the curriculum is weakened by the fact that local Boards of Education are allowed to modify the curriculum according to their needs, as are individual schools at the upper secondary level. Scope for local variation is allowed in the percentage of credits which can be taken in elective subjects as opposed to those designated as compulsory. Ten years ago, of the 85 credits required at the upper secondary level, 68 were compulsory. There are now only 32 compulsory credits out of a required 80.

1.08 Textbooks are chosen by the local Board of Education from those approved by the Ministry of Education. The content of textbooks must conform to guidelines drawn up by a committee appointed by the Ministry, on which scholars in the subject area and school teachers are represented.

Curriculum Development

1.09 The process of producing text books begins when the few textbook companies commission academics and teachers to produce manuscripts, whose contents must conform to the official curriculum guidelines laid down by the Ministry. These guidelines specify the material to be taught at each grade level. The manuscripts are then submitted to the Ministry for screening. This task is entrusted to the Textbook Authorization Research Council, an advisory body to the Education Minister. The Council approves or rejects each manuscript on the basis of deliberations by the text examiners, the Ministry officials who actually screen the texts. In the screening process the examiners may demand mandatory revisions or suggest non-mandatory revisions. Non-compliance with the former means automatic rejection of the manuscript.

1.10 After the manuscripts have been authorized for use, municipal boards of education adopt one authorized textbook in each subject at every grade level for use in local elementary and middle schools. They are paid for by the Treasury and distributed free. Upper secondary school texts are chosen by each school's principal. The process from screening to first use in schools covers a 2 year span. Technically they are not state-compiled textbooks, but each textbook publishing company has a keen financial interest in seeing its textbooks authorized and adopted, and tries to produce the kinds of texts that will pass screening and appeal to those empowered to decide which books to adopt. There is a tendency in Japan to teach the textbook material as a goal in itself, not use it as one in a range of references as in many other countries, and hence the importance attached to it. This system of textbook authorization has recently been the subject of some controversy as a result of newspaper reports in 1982 that accounts of Japanese aggression in China and Korea had been watered down in a social studies text in response to the Ministry examiners' demand for mandatory revisions. Both the Chinese and Korean governments issued protests. Subsequent investigation showed that the initial news reports had in fact been mistaken, but the controversy over the screening system continued.

1.11 While the overwhelming majority of mandatory revisions have been directed at errors of fact, it has been claimed that non-mandatory revisions have sometimes been suggested to correct a perceived anti-establishment bias in some social studies texts, since the government has in recent years been concerned over the influence of the Marxist-led Japan Teachers Union. In fields such as the social sciences it is often difficult to agree on what constitutes scientific truth, and in disputes between textbook authors and Ministry examiners the odds are weighed in the examiners' favour since the authors have a personal stake in having the books approved. There have been several issues raised during the controversy. Some commentators are concerned that the screening system is based on state authority rather than scholarly research, and advocate screening by an independent body of experts. Others question the closed nature of the screening system which does not enable public scrutiny of the process by which books are evaluated, adopted and put to use. It has also been pointed out that since sales of a book are guaranteed once it is adopted, textbook producers concentrate on content and format that will secure approval, and this tends to stifle innovative approaches. Another major issue raised in the controversy is the central position of the textbook in Japanese education. It has been contended that if a wide range of reference books and materials were authorized and used, reflecting a variety of points of view and aspects of the subject, rather than using a single central text, then the nature of the authorized text would cease to be an issue of major political concern.

Content

1.12 The elementary school program gives a great emphasis to the development of basic skills. Japan participated in the international studies of school performance in 1965 and 1975, and Japanese students performed very well in mathematics. Eight subjects are taken in the elementary school - Japanese language, social studies, arithmetic, science, music, art and handcrafts, homemaking and physical education. There is also time allowed for moral education and special activities.

1.13 In the lower secondary school, homemaking is divided into industrial arts for boys and homemaking for girls. Two elective subjects are also added to the curriculum, a foreign language, mostly English, and a subject relating to prevocational education.

1.14 Moral education is compulsory at all levels of schooling, and is taught approximately 1 hour a week. Moral education is considered to be very important in inculcating the basic principles by which Japanese people are expected to live. As there are few difficulties associated with cultural diversity, the moral education program tends to be accepted, not necessarily without discussion, but without serious divisiveness. The broad aims of moral education are those stipulated in the Basic Law of Education, and more detailed objectives are provided in the prescribed courses of study. These include such matters as proper modes of behaviour, taking responsibility for one's own actions, respect for others, realization of the value of labour, the love of truth, the value of friendship, fulfillment in community life through mutual co-operation, tolerance and understanding, harmony and selflessness, social solidarity, respect for the spirit of the law, and the meaning of rights and duties.

1.15 The general policy in regard to the upper secondary school is that each school should provide a proper curriculum in compliance with the provisions of related law s, ordinances and in consideration of the actual conditions in each region and the abilities and aptitudes of the pupils. Standard numbers of credits for each subject area are prescribed. 35 unit hours of lessons per school year are computed as one credit, with one unit hour being 50 minutes. A full list of subjects is detailed, but schools with particular regional features or circumstances can prescribe other courses.

1.16 The courses at upper secondary level may be classified into two major groups in terms of content-general courses and vocational courses. The minimum number of credits required for graduation in both types of course is 80. It is compulsory for pupils to take subjects in the areas of Japanese language, social studies, maths, science, health and physical education and the arts. Subjects chosen in these areas must fulfill the prescribed number of credits.

1.17 In vocational courses, pupils have to obtain 30 or more credits in the relevant vocational subject areas. Vocational courses are classified into the 6 major fields of agriculture, industry, commerce, fisheries, homemaking and nursing. Most graduates from vocational courses enter the workforce, but many go on to universities, junior colleges and special training schools. In vocational subject areas, suitable subjects are chosen by schools in consideration of the pupils needs and the conditions in particular areas.

1.18 Extracurricula activities are also required, and consist of homeroom, pupil assembly activities, club activities and school events. Female pupils are required to take general home economics. Moral education is supposed to be carried out through educational activities as a whole. Accordingly it is required that suitable moral guidance be given in the course of instruction in each subject area and extracurricula activity.

1.19 Attitudes of students towards the curriculum are influenced by the perception that unless they complete secondary school their employment prospects are reduced. There is consequently a very small drop out rate, and the retention rate is about 94.6% of an age group. There have been many criticisms of the 'cramming' system which operated in schools during the 1970s. As a consequence, standards have been revised, and they have reduced the content of the upper secondary school curriculum for any particular individual by 30%, and reduced total school hours by 12%.

There is considerable interest in developing school-based curriculum around the national structure, and the questions of diversifying the curriculum and increasing the vocational content at the expense of general content are hotly debated. There is a widely expressed view that vocational content should be increased.

1.20 There is also considerable interest in international education, and Japanese educators are stressing the internationalization of their educational program in contrast to past insular approaches. One of the major issues being addressed is whether this should be treated as a separate subject area with an interdisciplinary approach or integrated into existing subject areas. The National Curriculum Council has been examining these questions. The 1982 revision of the upper secondary curriculum also introduced two new subjects, Contemporary Studies and Science 1, which is an integrated science subject similar to our General Science.

Examinations and Assessment

1.21 All students are entitled to proceed from the elementary to the lower secondary school without examination or selection procedures. Lower secondary school graduates who have completed the required number of credits are entitled to apply for admission to any of the upper secondary schools located in a specified attendance district. The upper secondary schools select qualified applicants on the basis of scholastic ability tests administered by the prefectural Boards of Education, as well as reports on each applicant from the lower secondary schools.

1.22 Graduates from upper secondary schools who have completed the required number of credits may apply for entry to universities or junior colleges. In the past applicants were selected by means of an entrance examination conducted by each university separately. Under this method applicants tended to converge on a number of prestigious universities, creating sharp competition and a tendency for these universities to set papers which exceeded the level and scope of upper secondary studies. This had the effects of inducing students to 'cram' for the examination as a goal in itself, and of distorting the education offered in the upper secondary schools. As a result a large number of 'cram' schools developed, operating outside normal school hours and providing students with intensive coaching to pass university entrance exams.

1.23 In view of these problems, the Ministry of Education, through the Committee on University Entrance Examination Improvement, conducted an investigation with the co-operation of universities and upper secondary schools, which reported in 1971. It called for effective use of the credentials supplied by the upper secondary schools and a joint entrance exam for all universities. The National University Association of Japan and the Public University Association of Japan also examined the question and reached the same conclusion. A National Centre for University Entrance Examination (NCUEE) was established in 197', and the first Joint Achievement Test for entry to all public and national universities was conducted in 1979.

1.24 The current procedure for selection consists of 2 stages. The first is the Joint Achievement Test administered by all national and public universities and the National Centre for University Entrance Examination and conducted simultaneously throughout the country. The second stage is an examination conducted by the individual universities to determine suitability for particular courses or faculties. This second stage examination is designed in the light of the admission policy of the university concerned. Selection is made on the basis of marks obtained in both of these examinations and other data including credentials from the upper secondary schools. For adults who have not completed upper secondary school, there is a test to determine whether their academic achievement is equivalent to that of students who have completed upper secondary education. University entrance qualifictions are granted to those who pass the test.

1.25 These changes have not eliminated the problems of extreme competitiveness and cramming, since there is still intense competition to gain entry to some universities. The Ministry of Education is continuing its efforts to overcome them by such means as attempting to change public attitudes in respect to the prestige accorded to graduation from particular universities and encouraging each university to develop its own characteristics in particular areas of stud .

CHINA

Aims and Philosphy

1.26 Education in China has undergone continuous change since the creation of the People's Republic. After the birth of the new China a policy of making education accessible to workers and peasants was implemented. From 1957, schools at all levels put into practice a policy of orienting education to proletarian politics, integrating education with productive labour, and enabling students to develop morally, intellectually and physically, and become workers with 'both socialist conciousness and culture'. Efforts were made to set up such an education system, culminating in a set of regulations for schools in 1961 which embodied the above principles.

1.27 During the 10 years of the cultural revolution, 1966-1976, education was subject to sweeping changes designed to eliminate elitism and bring it under the control of the masses, and there was a perceived decline in educational standards. However, after the fall of the 'Gang of Four' stability returned and stress was laid on improving the quality of education. The policy now is to develop education in harmony with economic development and to establish a socialist education system which suits the needs of national modernization, as well as creating a 'socialist spiritual civilization'. Stress is laid on morale, discipline, politeness, hygiene and health.

1.28 The present aim is to speed up the development of human resources. During the last few years, government leaders have repeatedly pointed out that in the modernization of the nation, science and technology are the keys, and education is the basis. Education is considered central to economic development, and is seen as a means to train workers and raise productivity, as well as a powerful force to foster socialist morality.

1.29 Primary education is considered to be the foundation of education as a whole and the starting point for raising the scientific and cultural levels of the nation. An important task in economic development is considered to be the diversification of secondary education, developing vocational education in a planned way, and readjusting the organization of general secondary schools. In both state run schools and schools run by professional sectors, factories, mines and people's communes there is a policy of support to vocational and technical as well as general education, but the emphasis is more and more on the former. The government has restored or established a large number of vocational, technical and agricultural schools. A certain number of general secondary schools have been converted to vocational schools, and pilot vocational programs have been organized in senior middle schools. It is considered that China needs, not only a large number of highly qualified specialists, but also an even greater number of intermediate level technicians and other professionals. Secondary technical schools can train the required personnel with less investment at a greater rate and in a shorter time. Thus educational policy in China is currently to give the highest priority to training for technical and practical vocations at the expense of general or academic education, and education is directly related to economic development.

1.30 China is a country with many national minorities, and has developed national minority education rapidly since liberation. A large number of national minority cadres has been trained, and the scientific and cultural levels of national minorities has been raised, thus promoting economic and cultural development in minority regions. The Chinese government has recently called on the people to realize the importance of minority education. Minority nationalitities have the right to education in their own language, and the national language, Mandarin, is taught as a second language.

1.31 In 1977 the Ministry of Education published a set of draft Rules for Primary School Pupils, which were aimed at moral development. These consisted of 10 points:-

- Love the motherland and people, study well, and make progress everyday.
- Attend class on time and ask for leave if you cannot attend.
- Listen to teachers attentively and do homework conscientiously.
- Persist in physical training and take an active part in recreational activity.
- Pay attention to personal hygiene, keep clothes tidy and clean, and refrain from spitting in public places.
- Love labour and learn to be independent.
- Observe school discipline and public order.
- Respect teachers, get along with classmates and be polite to others.
- Show concern for the collective, protect public property, and turn in everything lost by others.
- Be honest and correct any mistake you have made.

The Ministry has published a set of rules for secondary students similar to those for primary students. Students are discouraged from drinking, smoking and falling in love so they can concentrate their energies on study.

Management and Control

1.32 The curriculum for primary and secondary schools is determined by the Ministry of Education. The Provincial Education Bureaux can modify the content to suit the needs of their province if necessary. For example, in the rice growing areas of the South the program for primary schools can include work relating to the growing and marketing of rice, and in the north where animal husbandry is a major agriculutural activity, the northern provinces can modify their curriculum accordingly.

1.33 The major decisions regarding education are taken by the Political Bureau of the Chinese Communist Party. In the area of curriculum these decisions have been translated into practical policy by a small number of people chosen from the higher ranks of the teaching profession. It is clear that schooling is still seen in a very traditional way by a wide range of social groups. The majority of Chinese still view it as a ladder to urban, white collar and professional jobs. It is because of this view that the changes of the Cultural Revolution were so readily abandoned.

Curriculum Development

1.34 During the Cultural Revolution there was an attempt to involve non-academics in the writing and vetting of teaching materials. Since the death of Mao it has been considered that this contributed to low standards and anti-intellectual bias. The preparation of the new textbooks which began publication in 1978 saw a return to the pre-cultural revolution academic tradition. More than 200 teachers from universities, secondary schools and primary schools worked with professional compilers on the texts, as well as scientists, technicians and other experts. There was no participation by the masses. There is no school-based curriculum development in the sense that we have it in Victoria, since it is claimed that teachers have sufficient tasks associated with their teaching. They can add local material or vary material to suit local purposes, but do not participate in large scale school based curriculum development.

1.35 Textbooks are prepared by the Minsitry, and are issued at cost price to all students. The mammoth task of producing and distributing textbooks requires a large educational division in its own right with its own Vice-Minister for Publications. The procedure for curriculum development is as follows:-

(a) An Editing Committee is set up under the Ministry of Education. This committee comprises a majority of teachers, (over 70%), as well as Ministry of Education representatives, experts, and scholars from universities and colleges. There are 400 members of the Editing Committee. Sub-committees are formed to deal with the different parts of the syllabus. The Ministry of Education sets the requirements in terms of the qualifications and standards of the teachers which the provinces select to represent them on the Editing Committees. Most of them are not party members, and are selected on the basis of skills, ability and experience. Some committee members are designated 'perpetual members', and they stay in Beijing.

b) The members of the Editing Committee gather in Beijing. There is one sub-committee for each subject in the primary school. For the secondary school curriculum, the group of people dealing with a particular subject meet to give an overall emphasis and form to the subject, then they divide into sub-committees to deal with each year of the program. They attempt to develop a curriculum program that has a 3 year stability period, and make modifications every 5 years. The previous revision was in 1978 and in 1982 they began the current revision.

(c) Although most members of the Editing Committee are not party members, the Communist party provides the basic principles for the curriculum through the National Congress and Provisional Congresses that are held once every five years, and the State Committee, which is a constant executive. There are some representatives of education in both of the congresses, and there is always considerable debate on education.

(d) In the Provinces there are no Editing Committees as such, although they do have editing groups which assist in the preparation of books and local teaching materials for vocational courses related to the activities of the particular province. All provinces must use the national curriculum.

(e) The curriculum is evaluated by gathering the opinions of experts and particularly teachers. Teachers are encouraged to give impressions and opinions of students' reactions and performance. These opinions are given to the local bureaux and are passed on to the Editing Committee when the next 5 year revision is undertaken.

Content

1.36 The changes announced in China since the death of Mao Zedong, particularly during 1978, meant a discontinuation of the educational experiments of the cultural revolution and a return to 'selecting talent' through academic examinations and a system of rather rigid priority schools. These changes were epitomized in a statement by the Minister of Education to the National Education Work Conference in April 1978. He said 'the teaching content and materials should be in keeping with the demands of the development of modern science and technology'. (26) Throughout the speech the emphasis was on raising quality and selecting talent. It was claimed that in the teaching materials produced during the cultural revolution the knowledge of basic theory was destroyed and the logic of knowledge and its systematic nature were confused. The preparation of the new national textbooks which began publication in 1978 saw a return to the academic tradition.

1.37 Primary schools offer 26 semester hours a week in 8 courses, Chinese, maths, politics, common knowledge, a foreign language, physical culture, music and fine art. Pupils have 6 hours daily of classroom instruction, independent study, physical labour and extra-curricula activities, and an extra hour for physical education and exercise. To teach the children to love labour, pupils in grades 4 and 5 have a two week labour session, during which they plant trees, do handwork, clean classrooms or do other work. Some schools have their own small factories. Pupils in country schools take part in light physical labour in production brigades, or help with household chores in busy farming seasons. The primary course is five years.

1.38 Secondary or 'middle' school students have 9 months each year and 28 hours a week in class. 'Middle' is the term used to denote the period of education between primary and tertiary in the same sense that we use the term secondary. Those in the junior middle schools, follow a three year course which consists of 13 subjects - Chinese, maths, foreign language, politics, history, geography, biology, physics, chemistry, physiology, physical culture, music and fine art. Students in the two year senior middle schools take 10 subjects - Chinese, maths, foreign language, politics, physics, chemistry, biology, history, geography and physical culture. All secondary students have one month of physical labour, which in rural areas may be farm work. Students have 6 hours a day for academic learning and 1 hour for extra-curricula activities organized by student unions, the Youth League and the Young Pioneers.

1.39 In order to train students to become qualified workers, the government has a policy of establishing secondary specialized schools, technical schools and other vocational schools. In the country, agricultural middle schools have been set up to enable students to learn the agricultural science and technology needed for work on the land. Secondary schools in coal mining, metallurgical and oil producing areas offer many courses in these fields. In the cities secondary schools put more stress on skills needed in industry, the building trades, transportation, finance and commerce, public health and the catering trades to prepare students for these kinds of work. Efforts are being made to restrict the development of ordinary middle schools and strengthen specialized vocational schools. Government employment departments are in charge of the work assignment of secondary school graduates in cities, and some factories and mines enrol secondary graduates on their own account. Only a small percentage enter universities because of limited accommodation.

Examinations and Assessment

1.40 At the end of secondary school there are 2 types of examinations. The first is the graduation exam, which is set by the school and which nearly all students pass. The second is a separate university entrance examination. The Ministry invites experts to prepare 6 examination papers. Each paper has 5 or 6 experts working on it. While it is being prepared, the experts live together for 3 months and are not permitted to make any contact with the outside world. When they have prepared the papers, they have them printed and distributed. About 2,000,000 students sit for the examination. Admission of students to particular universities is handled by the enrolment committees of central and local education departments, which admit candidates according to the state's needs and their judgement of the student. There is a system of 'key' universities and colleges which are being developed as leading institutions in their field. Entry to these institutions requires a higher standard of performance in the examinations.

THAILAND

Aims and Philosophy

1.41 Thailand has developed a system of education which is peculiar to its own situation. Unlike other countries in the south east Asian region it has never been under colonial rule at any time in its long history. Its system of government is a constitutional monarchy, but problems associated with regional instability, border conflicts and internal security have resulted in what to all intents and purposes is military control, although the formal institutions of democracy are retained. It is a country of great extremes of wealth and poverty, with the majority of Thais being very poor. Poverty tends to be concentrated in the rural areas and in the north east, and there are difficulties associated with educational provision in these areas. The rationale for Thai education is national survival, unity and strength, and this is consistent with the situation of the country.

1.42 Goals for Thai education at every level are explicitly stated. In general, these are that all Thai citizens are entitled to equal rights to education in keeping with their abilities, equal opportunities 'to free themselves from lack of knowledge and poverty', (18) and the capacity to deal with social change and to share responsibility for national survival. It is the obligation of the government to provide education to all sections of the society without discrimination, giving due consideration to the development of knowledge and skills essential to everyday living and national security within a democratic system with the Monarch as head of state. Learners should be able to earn a living honestly and perform their responsibilities as good citizens, thereby constituting strength and power for the nation. Education is meant to bring about happiness and well being through the inculcation of awareness of being a Thai, self-reliance, creativity, adaptability, diligence, endurance, honesty , frugality and self-discipline. Education at each level must be functional and terminal. Ethical values should be developed in parallel with modern technological knowledge. Above all, education is intended to stimulate a sense of self-sacrifice and the will to uphold, defend and protect the unity and freedom of the Thai nation.

1.43 The elementary school curriculum is formulated within the general policy that it is meant for all children and is to provide functional experiences within a terminal program. It aims to build national unity and consequently consists of common components as well as diversification and variation to suit local needs and situations. Elementary education provides basic knowledge and skills and practical experiences leading to the world of work and good citizenship. Detailed aims are grouped under 4 headings:-

. Basic knowledge and skills
. Being a good member of the community and nation
. Desirable qualities, including self sacrifice, self discipline, diligence, rationality, tolerance, sportsmanship and cooperation.
. Peaceful life, including adaptability to changing circumstances, faith in religion, initiative and creativity, independent thinking and problem solving.

1.44 The principle underlying the lower secondary curriculum is that it should provide a general education which is a basis for all occupations and allow schools to offer programs which are terminal or which prepare learners for further education. It should develop the learner's personality and abilities through study programs that incorporate general and vocational knowledge, respond to the occupational needs of each locality, and provide opportunities to seek knowledge from outside sources. Detailed goals include enabling learners to develop their own potential; instilling creativity and positive attitudes to all occupations; developing self-discipline and social responsibility, and knowledge of duties and rights; providing adequate basic knowledge and skills and perfect mental and physical health; inculcating love of one's home town, and instilling national pride, loyalty to the nation, religion and King, and the collective maintenance of national security.

1.45 The upper secondary curriculum is meant to be a continuation of that of the lower secondary school with an emphasis on specialized skills with a future occupation in view. It is designed to give practical experience to students in terms of occupational and professional training or foundation knowledge for higher studies, and to foster intellectual curiosity, discipline and moral courage. It puts emphasis on integrating theoretical and practical knowledge, encourages co-operative use of skills, and provides opportunities to seek knowledge from outside sources. Other stated aims include fostering a moral way of life, cultivating understanding and appreciation of science, arts and culture, and encouraging respect for the rights and freedom of others. Developing a sense of civic responsibility, allegiance to ones country, and a better understanding of the foundation of problems concerning current political and socio-economic conditions of the country are also included in the statement (21).

1.46 The common thread in these stated aimsofthe education system is the emphasis on practical knowledge and the provision of vocationally useful skills and knowledge; and the emphasis on the creation of national unity and loyalty.

Management and Control

1.47 The Under Secretary for State for Education has ultimate responsibility for the curriculum, and has the authority to cancel, add to, or change the subject list and content. The Ministry of Education decides the content not only of required units of study, but also of electives. Extra curricula activities do not need Ministry approval. Regions are encouraged to develop their own programs, but they must be approved and printed by the Educational Materials Centre of the Curriculum Development Centre. The control of curriculum through a separate department, the Curriculum Development Centre, is a distinctive feature of Thailand's schools administration.

1.48 The Curriculum Development Centre (CDC) is an integral part of the Department of Educational Techniques, one of 9 departments in the Ministry of Education. It has recently been re-named the Department of Curriculum and Instructional Development. This department has the overall responsibility for maintaining and improving the quality of education in all formal institutions below university level. It constructs syllabuses, develops curriculum, and undertakes research and evaluation. It provides guidance, prepares materials, and guides the launching of new programs. Basically, the CDC is the heart of the Department and all other divisions within it support the CDC. First created as a division within the Department in 1972, the CDC was upgraded to become a Centre in 1975 and at that time assumed its currently central position.

1.49 The CDC itself is divided into 4 sections and 1 unit, the Elementary Curriculum Development Section, the Secondary Curriculum Development Section, the Regional Curriculum Development, Evaluation and Training Section, the Administration and Co-ordination Section, and the Population Education and Environmental Study Unit.

1.50 The work of the Centre is guided by several high level committees. These are:

- The Curriculum Improvement Committee.

  This consists of the Undersecretary of State for Education, the Director-General of the Department of Educational Techniques, the Directors-General of all the departments in the Ministry of Education, the chiefs of the supervisory units and the Secretary General of the National Education Commission. This committee has the final say in approving any new curriculum development for primary or secondary schools. It has several sub-committees, for elementary and secondary curriculum development and for evaluation. The role of these sub-committees is that of determining overall structures and objectives of new curricula, and approving drafts.

- The Curriculum Implementation Standing Committee

  Formed in 1978, this committee has the same membership as the Curriculum Improvement Committee, but also includes people from other agencies involved in school operation, for example the Ministry of the Interior's Division of Rural Education. This committee has overall responsibility for co-ordinating the activities of different departments and agencies relating to the nation-wide introduction of the new 6-3-3 education system which was begun in 1978 and completed in 1983. It has two sub-committees, one for implementing the change in the structure of the school system and the other for implementing the change in the curriculum. A secretariat in the Department of Educational Techniques is operationally responsible for these committees, and together with normal CDC staff, has been responsible for co-ordinating and promoting all curriculum implementation activities.

- A Committee for promoting regional curriculum development activities.

  This is chaired by the Director-General of the Department of Educational Techniques. Each of the 12 educational regions and the Bangkok Metropolitan Administration have their own Regional Curriculum Development Committees, with sub-committees or working groups responsible for elementary or secondary curriculum development.

1.51 The stated objectives and functions of the Curriculum Development Centre are to:-

- identify the minimum essential learning needs of different population groups in different areas and of different ages;
- evaluate the effectiveness and relevance of existing curricula and their implementation;
- develop an effective and continuous process of curriculum development with local participation;
- develop syllabuses and a national core curriculum for all subjects and grades, and advise and assist regional and provincial groups in developing local variations;
- develop curriculum materials, handbooks and instructional aids for teachers;
- develop evaluation instruments to help teachers evaluate the effectiveness of instruction;
- design and arrange inservice and preservice training of key personnel in the use of curriculum materials;
- co-ordinate other activities for effective implementation;
- supervise and evaluate full scale implementation and obtain data for further revisions.

Curriculum Development

1.52 In the past curriculum development was carried out by ad hoc committees in particular subjects. This was slow and piecemeal and made it difficult to co-ordinate the curriculum at different levels and between different subjects. Ad hoc committees of this nature were set up in 1970 to revise the curriculum for all levels of schooling. It had not changed for 17 years. The committees worked until 1976 and the implementation of the new curricula was begun in 1978. About 100 people were involved in these ad hoc committees. The majority were professional staff from universities and the Ministry of Education. Parents and members of the community were not directly represented. However, most of those involved had been teachers who were experienced not only in teaching but also in curriculum construction.

1.53 The Ministry of Education was aware that curriculum development should be a continuous ongoing activity with built in mechanisms to ensure vertical and horizontal integration and to cater for the needs of particular groups. Accordingly, in 1972 the committee system was incorporated into the Curriculum Development Division of the Department of Educational Techniques, now named the Department of Curriculum and Instruction Development, and upgraded to the Curriculum Development Centre in 1975. The structure and functions of this Centre have been described. (para 1.48 - 1.51). It is unique in that it has control over not only setting the curriculum, but the development of curriculum materials as well.

1.54 The procedure for revising the elementary school curriculum was to set up working groups of teachers, supervisors, subject specialists, representatives of educational agencies, and experts on curriculum development and evaluation for each of the 4 main areas of the primary curriculum, which are skills subjects, life experiences, character development and work oriented experiences. These working groups had the responsibility of developing curriculum content and materials. Officials of the Curriculum Development Centre acted as co-ordinators and secretaries for each working group.

1.55 In 1975 after the completion of the first draft of the curriculum, seminars were held and comments sought on the material from teachers and high level educators. An editorial committee was set up to finalize the second draft, and working groups prepared instructional plans for trial purposes. 65 schools were selected to try out the materials, and their teachers, administrators and supervisors were given inservice training. It was decided that trialling should be carried out twice for each grade. In 1976 a trial was conducted in Grade 1 while materials were prepared for Grade 2. In 1977, after the Grade 1 materials had been revised, a second trial was launched, and the first trial for Grade 2 began. The same procedure was repeated until Grade 6. Trial school teachers and CDC staff were involved in the revisions of the materials, and refresher training was provided for all trial school staff. After the final revisions had been made, the materials were produced for mass distribution and nationwide implementation. Regional variations on the materials in certain limited areas were carried out by the same process, but half a year to one year behind.

1.56 The procedure for secondary curriculum development was similar. Course outlines were prepared for each subject at each level. From these, draft textbooks and learning materials were prepared for one year level at a time, as well as guides for using the texts, general curriculum guidelines and evaluation guides. A high level group of educators and teachers revised and edited the texts and prepared the final version of all materials, which were then produced for mass distribution and nationwide implementation. Regional variations and vocational education materials were prepared in phase with the national curriculum materials.

1.57 The Educational Materials Section of the Department of Curriculum and Instruction Development prepares the texts, which are published by the state enterprise printing house under the Ministry of Education. Books are distributed free to children in government primary schools. Secondary students are required to buy textbooks.

1.58 Apart from these materials, there is also an opportunity for individual teachers to develop texts, which must be submitted to the relevant Committee of the CDC for approval. The procedures adopted are as follows: In April-May it is open for teachers to submit books for consideration. In June there are readings by members of the committee and meetings to discuss the texts which are submitted, and books can be eliminated at this stage or sent back for revision. In January a list of the books which are prescribed is sent to the schools, and in March the schools set up a committee to select the text books from the list provided by the Ministry of Education. Only teachers are represented on the school committees that select books. Parents have no involvement.

Content

1.59 At both elementary and secondary levels the new curricula are designed to be more relevant and functional, with more integration and less esoteric material. Each level is designed to be complete in itself and terminal. English is no longer compulsory, and there is less emphasis on external assessment.

1.60 The curriculum for the elementary level is designed around the new structure of the school system developed in 1978, which involved a change from a 4-3-3-2 system to a 6-3-3 system. This was designed to enable Thailand to achieve universal 6 year education by 1983. Since the majority of Thais will receive only these 6 years, the elementary curriculum has been designed as terminal. The curriculum has 3 basic orientations - individual development, local and community development, and national development. There is less emphasis on academic subjects and more on aspects relevant to the child's every day life. The teacher has some freedom in adapting programs to local conditions, and her role is envisaged as that of a facilitator of learning rather than a repository of all knowledge. Use is made of community resources, with activities taking place outside the classroom and local people being utilized to teach particular skills. Syllabuses have been grouped two years at a time to enable students to progress at their own pace, with a 6 year elementary cycle being the norm, but some completing it more quickly and some more slowly.

1.61 The curriculum is no longer made up of a host of separate subjects, but is classified into 4 integrated groups of learning experiences. These are:

Area 1: Skill subjects, comprising Thai and mathematics.
Area 2: Life Experiences, involving problem solving processes, social studies, environmental studies, health education, and survival and living skills.
Area 3: Character Development, which includes ethics, the arts and physical education, and religious practices, normally Buddhist. In areas where the majority of the population are not Buddhist, other religions may be substituted with the approval of the Regional Education Officer.
Area 4: Work Oriented Experiences, involving practical work, vocational orientation and prevocational skill training relevant to the region.

1.62 Allocation of time for each of the 4 main areas is as follows: Skill subjects take up approximately 50% of total classroom hours in Grades 1-2, 35% in Grades 3-4, and 25% in Grades 5-6. Life Experiences comprise approximately 15% of total classroom hours in Grades 1-2, 20% in Grades 3-4 and 25% in Grades 5-6. Character Development takes up 25% of classroom time in Grades 1-2, 25% in Grades 3-4, and 20% in Grades 5-6. Work Oriented Experiences comprise 10% of classroom hours in Grades 1-2, 20% in Grades 3-4 and 30% in Grades 5-6.

1.63 It is stipulated that learners should be given opportunities to engage in both theoretical and practical aspects of learning activities, so as to encourage individual growth and a successful life in the community. Subject matter at the primary school level is usually taught around topics, such as myself, my community and my nation.

1.64 At the lower secondary level, 33 periods a week must be devoted to the study of curriculum content, and 2 to counselling, co-circular activities or remedial classes. The weight of each subject is measured in terms of credits, a one credit subject requiring 2 periods of study per week for a term. Learners are required to take 75 credits of mandatory subjects and an additional 24 credits of elective subjects. One foreign language is allowed in year 3. In order to graduate, students need not fewer than 90 credits and to have passed satisfactorily in Thai and Social Studies.

1.65 Lower Secondary Schools are required to organize other activities for one period a week which involve the development of personality and character, for example Boy Scouts or voluntary service activities. These activities count as one credit of study per term. Schools can also arrange extra curricular activities as they see fit in accordance with Ministry of Education regulations. There is a flag ceremony every morning, followed by a moral advice session aimed at cultivating belief in the institutions of the Nation, the King and religion, and fostering school discipline. Schools must organize assemblies for moral training and religious worship suitable to their locality for at least half an hour a week.

1.66 The curriculum is divided into 5 semi-integrated areas, language, science-mathematics, social studies, personality development and work education. Within each area there is considerable integration, for example social studies subjects such as history and geography are no longer taught separately, but as parts of more general courses about Thailand and its relationship to the rest of the world.

1.67 In the first two years, the mandatory subjects are Thai, science, mathematics, social studies, health and physical education, art, other activities and work experience. In the third year, Thai, science, social studies, health and physical education, other activities and work experience are all mandatory. Foreign languages and vocational education are elective at all levels, and elective studies in some of the mandatory subjects are also offered. Work education is offered in household care, food, clothing, electricity, agriculture, mechanics, handicrafts and a range of other areas. Programs suited to local needs and conditions can be offered with the approval of the Ministry of Education. Pupils are able to elect a significant proportion of their subjects from the first year onwards, and the proportion increases as they move through the school. For work and employment education, courses can be taken in vocational training centres or as 'home projects' as well as in school. The lower secondary course, like the elementary and upper secondary courses, is designed to be terminal.

1.68 The upper secondary curriculum normally takes 3 years to complete. Schooling consists of 35-40 periods a week, of which 28-35 must be devoted to study time and the rest to co-curricular activities, counselling, remedial classes and students own research. Schools must organize other activities, supplementary to the students' learning program and conducive to personality and character development. They are also required to provide guidance services, including career guidance, and remedial classes.

1.69 Students are required to take mandatory and elective subjects as specified in the curriculum structure, as follows:-

Upper Secondary Structure

1. Mandatory Course : 2 parts

1.1 General Courses: 24 credits

Thai	6 credits
Social Studies	6 "
Physical Education	6 "
Science	6 "

1.2 Foundation Vocational Course: 12 credits. Only one of the following subjects may be chosen.

Industrial Arts	12 credits each
Agriculture	"
Home Economics	"
Commercial Studies	"
Arts and Crafts	"
Arts	"

N.B. With the exception of Arts, all the foundation vocational courses form also the core courses of the curriculum for the vocational studies certificate of 1981.

2. Elective Courses

The following courses may be chosen according to learning programmes:

Thai
Physical Education
Mathematics
Arts
Agriculture
Commercial Studies
Social Studies
Science
Foreign Language (2 may be chosen)
Industrial Arts
Home Economics
Arts and Crafts

N.B. Subjects in the following courses: Industrial Arts, Agriculture, Home Economics, Commercial Studies and Arts and Crafts, may be chosen from the vocational studies certificate curriculum of 1981 or other curricula approved by the Ministry of Education.

Each elective vocational subject can be offered either on the basis of the curriculum for Vocational Studies Certificate of 1981 or other vocational studies curricula. The contents and number of subjects in the mandatory courses of the Upper Secondary Curriculum and the Vocational Studies Certificate Curriculum of 1981 are consistent with each other. Students can transfer the results of subjects in both mandatory and elective courses to either curriculum.

Examinations and Assessment

1.70 In primary schools, testing and evaluation consists of 4 aspects:- diagnostic testing; formative evaluation to check whether teaching objectives are being met; end-of-term evaluation so parents will know how their children are progressing; and summative evaluation for the purpose of class promotion and completion of primary school. Summative end-of-year evaluation for promotion purposes is carried out only for grades 2,4 and 6. All testing is internal.

1.71 There are no centrally administered examinations at the lower secondary level. The teachers themselves evaluate the students' work. In order to graduate from the lower secondary school, students must accumulate not fewer than 90 credits of study, have completed the number of mandatory and elective subjects as specified in the curriculum structure, and have received a passing grade in Thai and social studies.

1.72 At the end of upper secondary schooling there are 2 sets of examinations. One is conducted within the school, examines every subject and is not difficult to pass. The other is university entrance, conducted by the Office of University Affairs, Ministry of Higher Education. This tests only academic subjects - Thai, English, Science and Maths. Vocational subjects are not tested, and hence the problem of vocational versus academic subjects in the upper secondary curriculum arises, as parents wish their children to have the opportunity to go to university. To graduate from the upper secondary school, students must have taken all the subjects as determined in their programs of study, and must have accumulated no fewer than 75 credits.

CHAPTER TWO - EUROPEAN COUNTRIES

NORWAY AND SWEDEN

General

2.01 For reasons associated with their historical and economic background, the Scandinavian countries offer examples in education thinking and practice which have aroused considerable world-wide interest. The strength of such interest in Australia has been reflected by the large number of professional visitors who have moved backwards and forwards between the countries concerned. In early post war years, the developments in Denmark were followed keenly and in recent decades the policies of Sweden have been keenly debated and much reading material is available on both countries. Therefore in this presentation we have decided to consider in some detail, curriculum policies as they relate to Norway and to include a briefer summary of developments in Sweden.

NORWAY

Aims and Philosophy

2.02 Norway is a country which is large in area, much of it consisting of fiords, islands and uninhabitable mountain ranges. It has only a small population, most of which lives in small scattered communities, and there are relatively few large towns and cities. There are no sizeable ethnic or cultural minorities with the exception of the 20,000 Lapps who live in the north of the country. A strong tradition of egalitarianism in Norwegian culture has influenced the development of its education system, and a policy that all children should be able to attend school without leaving their families has led to a large number of small rural schools. The Evangelical Lutheran religion is the official state religion, and the Basic school is required to 'help give the pupils a Christian and moral upbringing'. (34). However, there is guaranteed freedom of religion, and children of parents who are not members of the Church of Norway may be exempted from religious instruction.

2.03 There are two official languages, Nyorsk, which is a synthesis of local dialects, and Bokmal, or 'book Norwegian'. At the Basic School level, local education authorities decide by ballot which is to be used as the language of instruction. Students of upper secondary schools normally have to study both, one as their main and the other as their second language. All textbooks must be published at the same time and at the same price in both languages.

2.04 It has been a fundamental aim of Norwegian education policy during this century to raise the general level of education among the population. Children are obliged to attend school for 9 years, and 90% continue in education after the compulsory period. Schools are co-educational and are not permitted to discriminate on the basis of sex.

2.05 The legal foundation of compulsory schooling is currently the 1969 Act Concerning the Basic School and the Supplementary Act of 1975. The purpose of the Basic School as stated in the legislation is to help give pupils a Christian and moral upbringing, to develop their mental and physical abilities, and to give them a good general knowledge, so that they may become useful and self-reliant human beings both in their homes and in the community. The school is required to further mental freedom and tolerance and to work for the creation of productive forms of co-operation between teachers and pupils and between school and home.

2.06 The purpose of upper secondary schooling, as laid out in the 1974 Act Concerning the Upper Secondary School, is to give a preparation for work and for life in the community, to lay a foundation for more advanced education, and to assist pupils in their personal development. It is expected to contribute to the development of knowledge and the understanding of basic Christian values, the national cultural heritage, democratic concepts, rational means of thought, and work. Upper secondary education should advance human equality, freedom of thought and tolerance, understanding of the environment, and international co-responsibility.

2.07 Reforms in Norwegian education have been directed towards this desire to raise the educational level of the entire population and to give everyone an equal opportunity for personal development regardless of residence, socio-economic background, gender and type of interest. There has been a desire to break with the tradition of using schools as agencies for selecting pupils according to ability and performance. Rather, they have sought to build schools which meet the needs of young persons and which are run along democratic principles similar to those prevailing in society in general, and which offer a wide variety of options to cater for pupils with varying talents and interests.

Management and Control

2.08 The Ministry of Church and Education is the supreme administrative body in education and is ultimately responsible for the curriculum. Each municipality has a school board which is responsible for schools within the municipality. A Director of Schools for each county represents the government and is the connecting link between the Ministry and the individual municipalities. The Basic School Council, the National Council for Innovation in Education and the Lapp Education Council assist the Ministry in determining the curriculum to be offered in the Basic School.

2.09 The fundamental purpose of the Basic School is decreed by an Act of Parliament. The Model Plan for the Basic School, developed in 1974, states more precisely the objectives outlined in the Act, lays down plans for the distribution of subjects and teaching periods, and provides teaching plans for all subjects at all levels. The Plan is the result of extensive preparatory work. In 1967 the Ministry of Church and Education appointed a committee of specialists in a wide variety of fields to produce a draft plan. In 1970 the first draft was made available for comment. After examining and discussing some 360 written opinions the Basic School Council drew up a proposal for the Model Plan. This was presented, together with a report, to Parliament in 1971. In 1974 the final edition was published, resulting from parliament's decisions and opinions submitted since the publication of the provisional edition in 1971.

2.10 The Model Plan is a comprehensive document of almost 400 pages divided into 2 sections. Part A contains a general discussion of major objectives. It stipulates that a high degree of responsibility for the curriculum must reside with schools and school boards and responsibility is devolved upon those connected with the school in its daily activities, provided their decisions do not conflict with the aims and intentions of the Model Plan. The Ministry lays down the aims of teaching through the Model Plan, the school establishes goals for its teaching program, and the teachers and pupils plan the program, select subject matter, and discuss organisation, methods and evaluation. Principles emphasised in the Model Plan include equality of opportunity, the need for co-operation between parents and school, the inculcation of values, the development of intellect and creativity, differentiated teaching for special needs, social responsibility, planning, and the democratic operation of the school.

2.11 Part B of the Basic Plan provides detailed objectives for specific subjects and topics, supplemented by guidelines and concrete suggestions for each subject at each year level. This is a framework plan, and it is the objective stated for each subject that constitutes the framework within which teachers operate. Each teacher must be able to justify his choice of subject matter and method on the basis of the objectives laid down. The plan does not include fixed syllabuses for the various year groups. However, the subject matter to be taught is divided into subjects and allocated to teaching periods for each year. Teachers have a degree of latitude to choose or omit subject matter and material. Methods of teaching are dealt with fully. It is stressed that children should take an active part in learning and that democratic working methods should be encouraged.

2.12 There has been some controversy in respect to the way in which teachers use the 1974 statement. While the plan claims to be providing guidelines only and suggests the use of local material, there is so much information and teaching material in the Plan that teachers tend to follow it without much variation.

2.13 The Model Plan is supplemented by a set of Instructions for the Basic School, which give directions in connection with the Basic School Act. These include matters such as standard directives for various categories of staff, particular services and areas of activity, the provision of marks, and contact with parents.

2.14 The Lapp Education Council, established in 1975, advises the Ministry on all matters concerning the education of the Lapp population. With regard to immigrants, found mainly in the Oslo area, local authorities are responsible for providing them with extra tuition in Norwegian and with opportunities to learn their own language and culture.

2.15 The legal basis for the Upper Secondary School is the 1974 Act concerning the Upper Secondary School. The Ministry is responsible for setting out the range of subjects and courses authorized and for determining guidelines for syllabuses, which must include a statement of the aim of the course and the main teaching points it covers. The Ministry may authorize a school to depart from the regulations about the range of subjects, but before doing so, it requires the consent of the county school board, the teacher s' council, the pupils' council and the school committee.

2.16 In practice, decisions about guidelines for the Upper Secondary curriculum are taken by the National Advisory Council on Curriculum, a body set up to advise the government. The composition of the National Advisory Council includes teachers, principals, representatives of higher education, student representatives and Basic School representatives. There are 8-9 members, and the Council establishes sub-committees to carry out particular activities.

Curriculum Development

2.17 Private publishers are responsible for the production and publication of textbooks and materials for use in schools. There are six large textbook publishers and a number of small ones. In most of the compulsory subjects there are a number of books from which schools can make their choice. Books must be approved by the Ministry of Church and Education, who make their decisions on the advice of the Basic School Council and the National Advisory Council on Curriculum. Books for all compulsory subjects and for the second foreign language are examined from the point of view of their content, their suitability as teaching material, the language in which they are written, and the way in which they present the sexes - they are not allowed to present a discriminatory picture of either sex.

2.18 The Norwegian Language Council examines the language of schoolbooks to ensure that it corresponds to the Norwegian Standard. As pointed out previously texts must be available in both Bokmal and Nynorsk. It is the responsibility of the Ministry of Church and Education to ensure that textbooks and teaching aids are prepared for special education, Lapp education and migrant education.

2.19 Research and Development work in education is carried out under the auspices of the National Council for Innovation in Education (NCIE), formed in 1954 under the Research and Development Act. This Act allows exemptions from the Education Act for particular schools to conduct educationally sound research and development projects. NCIE has at most 9 members and assists the Ministry with advice, initiative and supervision of research and development activity. Its membership comprises representatives of pre-schools, the Basic Schools, the Upper Secondary schools, teacher education, higher education, research and labour market organisations, and allows for a balance between geographic regions. It is supported by a secretariat of 50 staff headed by a director, and also uses contract and commissioned staff. Under the new conservative government this council is likely to be disbanded.

Content

2.20 In Norway a child begins school at the age of 7 and schooling is compulsory to the age of 16. The compulsory years are spent in the Basic school, which is divided into 2 stages, a 6 year Junior stage (7-13) and a 3 year Youth stage (14-16). Post compulsory schooling is undertaken in the comprehensive Upper Secondary school. The curriculum in Norway is distinctly 'modern' in that there are few opportunities to study classical subjects such as Latin, Greek and ancient history.

2.21 In the six years of the Junior stage and the first year of the Youth stage, all pupils may elect to take optional subjects offered by the school for 5 periods a week. In the 9th year optional subjects occupy up to 10 teaching periods, and pupils may choose a branch of options which give some preparation for vocational training at the upper secondary level. Apart from the optional subjects, classes are unstreamed and stay together for all subjects.

2.22 English is compulsory for all pupils from the 4th grade onward, and a second foreign language may be chosen in the 8th grade. 60% of pupils at the Youth stage take a second foreign language, the majority taking German. Arrangements for special teaching are made when necessary, in accordance with the Law Concerning the Basic School. Those handicapped pupils who are difficult to integrate into the normal school may be taught at special schools. Special social-pedagogic advisory bodies decide whether pupils need special education, help children solve problems, advise on choice of subjects and careers and act as contacts with parents and bodies outside the school.

2.23 For the compulsory subjects the Model Plan has provided comprehensive syllabuses which are meant to be taken as framework plans rather than as a compulsory minimum set of material to be learned by all pupils. Plans are suggested for each year group, containing the objectives for the subject, the range of content, methods, teaching aids, and means of assessment. Teachers may select from the corpus presented in the syllabus, use supplementary material from other sources and allocate subject matter and teaching periods as they see fit within the framework.

2.24 There are a number of compulsory topics in the basic school. Most of the subject matter of the compulsory topics is integrated into the syllabuses for the compulsory subjects. A compulsory topic may be included in one subject or divided among several. The compulsory topics are traffic studies, alcohol, narcotics and tobacco, environmental conservation, careers guidance, class council/pupil council activities, family education, consumer studies, nutrition, first aid, dental care, and propagation of the species.

2.25 Children living in Lapp areas must be provided with tuition in the Lapp language when their parents desire it The Model Plan includes a plan for the teaching of Lapp. However, there are 3 Lapp dialects in Norway which makes it difficult. There has been a lot of material produced for the teaching of Northern Lapp, the largest linguistic group, and some for Southern Lapp, but little progress has been made in the production of teaching materials for Central Lapp.

2.26 The timetable for the Junior Stage (ages 7 to 13 years) is as follows:-

Subject	Weekly Periods						Total
Grade	1	2	3	4	5	6	
Religion	2	2	2	2	2	2	12
Norwegian & Handwriting	5	5	5	4	5	5	29
Maths	3	3	4	4	3	3	20
English				2	2	3	7
Orientation subjects (social studies, local studies, science)	2	2	2	4	4	7	21
Music	1	1	1	2	2	1	8
Arts & Crafts	1	1	2	4	4	4	16
Physical Education	1	1	2	2	2	2	10
	15	15	18	24	24	27	123

This table shows that the first part of the timetable amounts to 123 weekly hours over the 6 year junior course. The required minimum number of class hours is 129, so the municipal board of education may decide the content of at least 6 weekly hours, and may also add a further 18 and decide its content. Local studies, social studies and science or nature study can be either combined in one subject or taught as 3 separate ones. Domestic science can be taught in this subject bracket and also in other subjects, such as craft. In the 6th year 1 weekly period has to be allocated to class council and pupil council activities.

2.27 The timetable for the Youth Stage (ages 14 to 16 years) is as follows:-

Subject	Weekly Periods			Total
Grade	7	8	9	
Religion	2	2	2	6
Norwegian	4	4	4	12
Maths	4	4	3	11
English	3	3	3	9
Social Studies	3	3	3	9
Science	3	2	3	8
Music	2	1	1	4
Arts & Crafts	3	2		5
Physical Education	2	3	3	8
Domestic Science/ Local Studies	3			3
Options		5	7	12
Class council/ pupil council activities	1	1	1	3
	30	30	30	90

Music does not have to be compulsory in the 8th and 9th grade. The second foreign language, which is optional, is allotted up to 3 teaching periods in the 8th grade and up to 4 in the 9th grade. In the 8th and 9th grades the following options may be offered: music, arts and crafts, local studies, secretarial studies, fishery and seamanship, agriculture, reindeer husbandry, economics and consumer studies, traffic studies, drivers licence for motorcycles or small boats, philosophical studies, personal development, technology, media studies, drama, social work, first aid and rescue work, participation in voluntary organisations, typing, special projects, a second foreign language, work experience, physical education and domestic science. Options are allocated 5 periods in the 8th grade and 7 or 8 in the 9th grade depending on whether music is compulsory or not.

2.28 The Upper Secondary school provides for the post-compulsory age group of 16-19 year olds, and entry is subject to completion of the 9 year Basic School or equivalent. It is comprehensive, and one of its fundamental aims is to give equal status to practical and theoretical education. Both types of studies exist at the same school and can be combined within the same course. Courses are arranged with flexibility so that pupils may change courses without wasting time. Pupils may finish school after 1, 2, 3 or more years since each year constitutes as far as possible a complete unit, allowing students to enter the work force or continue with their education.

2.29 There are 9 branches of study - general; manual and industrial studies; arts crafts and aesthetic studies; fishing and maritime studies; agriculture; sport; clerical and commercial studies; domestic sciences and social, health and physical education. Each branch is divided into a number of lines. For example, in the general education branch there are 3 lines, natural sciences, social sciences and languages. Carpentry is one of the lines in the industrial and manual studies branch. All branches and lines have the same structure, consisting of 1 or 2 year foundation courses and advanced courses covering one, or in some cases, 2 years. Religion is a required subject in 2 year foundation courses and in the advanced general education course, but is not in 1 year courses or advanced vocational courses. The teaching of religion is not tied to a particular denominational doctrine.

2.30 The intention of the Act Concerning the Upper Secondary School is to give pupils as much opportunity as possible to study in their chosen area. However, in practice complete freedom of choice is not available as there is a shortage of places in certain areas of study. There is therefore competition for places and a need to select applicants for admission to certain branches or lines in some areas. Selection criteria vary between counties. The goal is to increase the number of places available to give all the right to three years of Upper Secondary Education in the subjects of their choice.

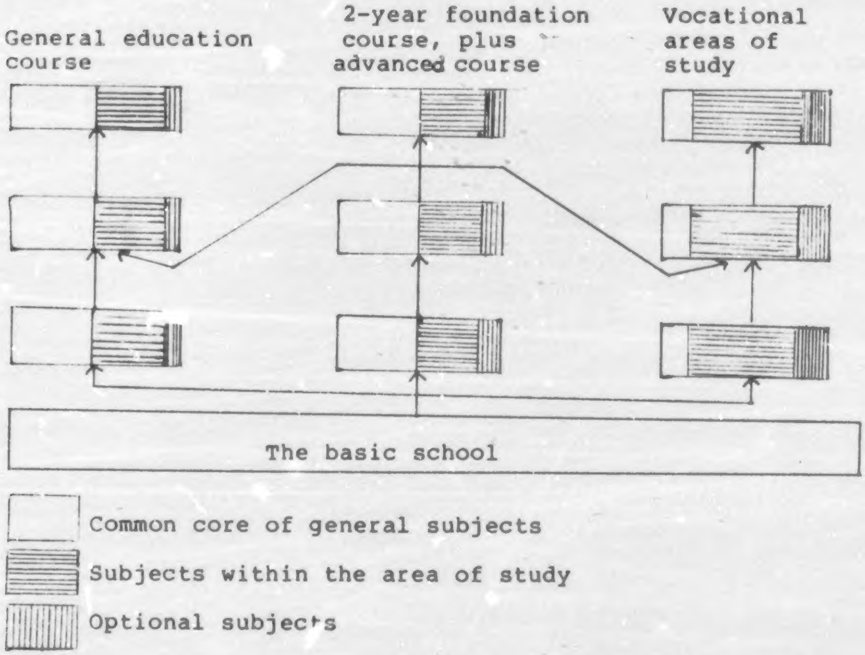
2.31 The two year foundation courses have a common core of general subjects occupying almost half the timetable, regardless of branch. The remaining teaching periods provide pupils with a choice of subjects from a vocational branch, general subjects, aesthetic subjects, physical education or combinations of studies from different branches. After 2 years, those students who have chosen vocational subjects are considered to have completed the equivalent of 1 year's apprenticeship, and can apply for a job and complete their final 2 years of apprenticeship in their chosen area or can continue an advanced vocational course.

2.32 The one or two year advanced courses provide for specialization in general subjects or in the different vocational branches. Completion of a 2 year advanced course in some vocational areas counts as completion of all but 1 year of an apprenticeship. Shorter courses are also authorised in some cases. Courses at the Upper Secondary school may be taken part time. and part of the training in particular courses may be taken in the workplace or through apprenticeship.

2.33 The courses taken by most pupils comprise 3 groups of subjects - general core subjects such as Norwegian, social studies and physical education, specialised subjects offered only in the chosen branch or line, and electives belonging to other branches or lines, or not belonging to any branch or line but offered by individual schools. The normal total of weekly teaching periods is 35. Electives take up 2 to 4 periods of a 1 year foundation course, and 5 for a 2 year foundation course.

2.34 The following chart, which outlines the structure of the upper secondary school, shows the normal routes of transfer from foundation courses to advanced courses. It is, however, difficult to transfer between some specialised branches without having to go through a new foundation course. In most cases transfer between related branches of study may be arranged without loss of time spent on a new foundation course.

The Structure of the Upper Secondary School


General education course
2-year foundation course, plus advanced course
Vocational areas of study
The basic school
Common core of general subjects
Subjects within the area of study
Optional subjects

2.35 The subjects and timetable in the foundation courses are:

- 1-year foundation course, vocational area of study

Common core of general subjects	
Norwegian and social studies	2
Physical education	2
Study area subjects	27 to 29
Optional subjects or additional study area subject teaching	2 to 4
Average total hours per week	35

- 2-year foundation course

Common core of general subjects	first year	second year
Norwegian	4	5
Religion	0	2
English	4	3
Social studies	0(3)	6(3)
Science	5	0
Physical education	3	2
Total hours of general subjects	16(19)	18(15)
Study area subjects	14(11)	12(15)
Optional subjects (maximum)	5	5
Total hours of instruction (maximum)	35	35

2.36 As far as advanced courses are concerned, subjects and timetables vary according to the courses. In the general education area of study the timetable for the foundation course and the advanced courses is:

	Year		
	1	2	3
Common core subjects			
Norwegian	4	5	5
Religion	0	1	2
First foreign language (English)	4	3	-
Social studies, geography, history	3	3	5
Science (chemistry, biology, physics)	5	-	-
Physical education	3	2	3
Total hours per week in common core subjects	19	14	15

	Year		
	1	2	3
Study area subjects			
Second or third foreign language	4	3	
Mathematics	5		
Optional subjects, and other study area subjects in the science, social science, foreign language branch of study, or in music	2*	13	15
Minimum total hours per week**	30	30	30

* Aesthetic or practical subjects

** The table assumes class periods of 45 minutes. If 40 minute class periods are used, the number of periods may be higher in some subjects.

Examinations and Assessment

2.37 The Model Plan lays down the main guidelines for assessing basic school pupils, while detailed regulations for parent-teacher contact, reports and marks are to be found in the Instructions for the Basic School. At least twice a year parents and guardians must be informed of their child's progress at school, by personal meetings or written reports. At the Junior stage no marks are given. At the Youth stage pupils are given marks for compulsory subjects twice a year. If the parents wish, their children can also be given marks in optional subjects as well. Pupils with learning difficulties can be exempted from assessment in 1 or more of the compulsory subjects. In the 7th and 8th year pupils are given marks for order and conduct if their parents wish. In the 9th year they must be given marks for order and conduct.

2.38 The scale of marks is divided into five categories - S, M, G, Ng and Lg. These stand for excellent, very good, good, fair and poor. In Norwegian, English and Maths these marks are relative and follow the curve of normal distribution. Pupils are evaluated in comparison with their age mates and the marks are awarded according to statistical rules which specify the normal distribution of marks for large groups of pupils. A particular mark indicates how many pupils would normally be at this level and how many below or above.In the other compulsory subjects a percentage breakdown is used and the basis for distribution of marks is that 50% should be given very good, 45% good and 5% fair.

2.39 For pupils in the 9th year a final written and oral exam is held in May-June. The final written exams in Norwegian, maths and English are external and standard. On leaving the Basic School, pupils are given a certificate, which is the same all over the country. This shows the pupils final marks, (those awarded on the basis of continuous assessment and those for exams) and marks or order and conduct. It also shows which optional subjects were taken, with marks where appropriate. Pupils who take a voluntary 10th year can be reassessed in 1 or more of the compulsory subjects. Regulations for entry to the Upper Secondary school vary from one county to another, but candidates are assessed to a considerable extent on the basis of marks obtained in the basic school where there are not sufficient places for all entrants.

2.40 There has been a lively debate on assessment procedures ever since the inception of the Basic School, and this remains a controversial topic. Pupil assessment was examined by a special Commission which was appointed in 1972. An initial report was presented in 1974 and another in 1978. However, Commission members could not reach agreement on marking procedures in the Basic School, and the final examination remains.

2.41 The Ministry is responsible for issuing regulations on assessment and certification at the upper secondary level. In principle any young person who has completed a 3 year program offered by any of the branches at the upper secondary school has a right to apply to enter higher education. In practice there is discussion as to whether some vocational courses offer a sufficient degree of proficiency in Norwegian, English and maths. There is an examination known as the examen artuim, an equivalent of matriculation, which used to be taken at the gymnas, or academic high school, before the creation of the comprehensive upper secondary school. This still provides entry to higher education. A third means of entry to higher education is individual assessment of the educational and working background of any person who has completed vocational training and had 5 years working experience.

Aims and Philosophy

2.42 Sweden, like Norway, has a tradition of an egalitarian ethos in social policy. There has been political stability over a long period, with the Social Democrats in power at national and local levels for 44 years until 1976. The country has also had industrial stability and a considerable growth in material prosperity for most of the post-war period. Sweden has also had a strong commitment to high standards of social welfare, and educational reform has been seen as a prerequisite for, and a concomitant of, raising the standards of social welfare of the population. Policies over the last few decades have been to raise the general level of education, improve educational opportunities for previously underrepresented groups, and provide a comprehensive education for all which gives equal status to practical and theoretical training. The definition of equality which is pursued in education is to provide all students with the ability to function effectively as members of society and with the basis for a lifelong education.

Management and Control

2.43 The provision of schooling in Sweden is the responsibility of municipal governments, but policies regarding the operations of schools are largely determined at the national level by the National Board of Education, whose major task is to ensure uniformity of structure and standards of education provided throughout the country. General objectives for the compulsory comprehensive schools and the upper secondary schools are drafted by the National Board and subsequently approved by parliament. The Board then establishes official curricula for the schools, which contain timetables for various levels, goals and general recommendations as to content to be covered in each subject or subject group, and associated activities such as guidance, student welfare, and extracurricular activities. These curriculum guidelines must be approved by the Ministry, but not parliament, and are therefore not as subject to political considerations. The National Board also issues commentaries to the curriculum, which include new information on such matters as developments in particular subject areas, teaching techniques and the education of children with handicaps.

2.44 The approved curriculum is compulsory for all schools, but is intended to provide broad general guidelines only, so that individual municipalities and schools may tailor it to meet individual and local community needs. In 1980 local plans were encouraged, particularly at the upper levels of compulsory schooling, with time allocations and the main areas to be covered still being set by the National Board. Within this framework teachers in theory have considerable freedom. In practice, however, most teachers have diverged little from the directives issued by the Board. There has been an increase in local planning by teachers, but it is still not as great as was intended.

2.45 At the school level, each upper secondary school has a Joint Council which includes the principal, teachers and students. This council has an advisory function and may have some influence over curriculum decisions. Joint Councils are not compulsory for the comprehensive schools providing for 7-16 year olds, but most schools have such bodies. All comprehensive schools also have class councils consisting of the class teacher and student representatives, which discuss matters of mutual interest. The influence exerted by these councils depends largely on local factors.

Curriculum Development

2.46 Texts and materials used in schools are developed by a variety of commercial enterprises, professional bodies and individuals. Before they are used in schools texts must be approved by a central government agency. Municipal school authorities obtain a list of approved materials and make decisions as to which will be used. Groups of teachers can make recommendations to the municipal authority in respect of the materials to be used in particular schools. Individual teachers who prepare materials may contact publishers and submit their texts for consideration. All text books are provided free to students.

Content

2.47 Sweden has a nine year compulsory Comprehensive School for students aged 7-16. This school includes a junior level (grades 1-3), a middle level (grades 4-6) and a senior level (grades 7-9). At the post-compulsory level, there is an Integrated Upper Secondary School for 16-19 year olds. Approximately 90% of students continue their education to the end of this level.

2.48 In the Comprehensive School all students take a common course at the junior and middle levels. At the senior level 3-4 hours a week may be devoted to electives, which may include foreign languages, home economics, or a range of other subjects which are decided upon by the municipal authority. English is compulsory from Grade 3, and in grades 8 and 9 all students take courses in home economics and child care and craft subjects, including textile work, woodwork and metal crafts. Extra curricular activities, which may include voluntary and community work, are compulsory for up to 2 periods a week. At the senior level there are also field trips to work sites and work experience programs. Students at the senior level may choose easier or harder course alternatives in languages and maths, but the basic principle followed is that until the end of compulsory schooling class groups are kept together without streaming or setting. Regardless of course types or choice of electives, all students have the opportunity to continue on to any course of practical or theoretical studies in the upper secondary school.

2.49 The Integrated Upper Secondary School offers 22 different lines of study grouped into 3 major sectors - arts and social subjects, economic and commercial subjects, and technical and scientific subjects. Each sector contains a number of lines which may involve 2, 3 or 4 years of study, as well as specialized shorter courses which provide direct vocational preparation. While preparation for advanced study dominates some lines, the majority are vocational in orientation and contain both theoretical and practical studies. All lines include studies in Swedish, civics or job-world orientation, gymnastics, and in many cases, English. Students may choose electives from different lines or sectors, and may transfer from one line to another if they wish. By completing any line of study which takes at least 2 years, a student fulfills the general admission requirements for tertiary education.

Two-year, three-year and four-year lines in the upper secondary school, by sectors

Arts and Social Subjects	Economics and Commercial Subjects	Scientific and Technical Subjects
2-year lines	2-year lines	2-year lines
consumer line	distribution and clerical line	see below(2)
nursing line(1)		
social line (1)	economics line(1)	3-year line(1)
social service line		
music line(1) (experimental)		natural sciences line
		coordinated natural sciences/technical line

3-year lines(1)	3-year lines(1)	4-year line(1)
liberal arts line social sciences line	economics line	technical line
-	-	-
Special courses	Special courses	Special courses

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(1) Mainly theoretical studies.

(2) Clothing manufacturing line, building and construction line, operations and maintenance techniques line, electro-technical line, motor engineering line, agricultural line, food manufacturing line, processing techniques line, forestry line, horticulture line, woodwork line, workshop line, technical line.

Examinations and Assessment

2.50 It has been government policy to remove the concepts pass and fail from the compulsory school system, and as a result marks are seldom given to pupils at the primary levels. A minimum of two meetings a year are held with parents of students in the Comprehensive schools to inform them of their children's progress. However, in grades 8 and 9 at the senior level of the Comprehensive school, some student assessment is made by teachers and marks are given. To help teachers arrive at norms for assigning marks, nationally standardized tests are given in Swedish, maths and foreign languages. These tests are not used to assess individual performance, but are intended to help teachers judge the level of performance in their classes compared with the level in Sweden as a whole. All students who have completed the Comprehensive school are entitled to a place in the Upper Secondary School, but marks obtained in grades 8 and 9 may have some influences over their acceptance into particular lines of study in areas where the number of places is smaller than the number of applicants and selection procedures are necessary.

2.51 There is no terminal examination at the end of upper secondary schooling. Assessment of student progess is internal and progressive within a course of study. Student promotion within the school is automatic unless the student requests otherwise. Standardized tests are administered in a number of theoretical and skill subjects under the auspices of the National Board, and are used by teachers as a guide to the level of performance in their classes in comparison to national norms. All students who have completed the equivalent of 2 years study in any line or sector of upper secondary education are entitled to entry to a tertiary institution, although in some lines it is necessary for them to take supplementary studies in Swedish or English.

FRANCE

Aims and Philosophy

2.52 French culture places great emphasis on rationality and values intellectual and artistic pursuits. The French education system has been highly centralized in its administration and academic in its aims. In the last decade, however, increasing emphasis has been placed on the democratization of education, the pursuit of equality, and catering for individual differences.

2.53 The current basis for the French education system is the Education Act of 11 July 1975. This Act states that education should allow the child to acquire a culture, prepare for professional life and exercise responsibilities as a person and a citizen. The family and the school are associated in the accomplishment of these aims. A further goal is the equalization of opportunities in education and in life. To achieve these aims, the education system was reformed after 1975 to provide for a unification and diversification of educational structures, with a wide range of options and help for pupils in difficulty; a more balanced development of technical, academic and artistic education; and greater educational autonomy and participation of the families of students.

2.54 Primary education is intended to provide the basic instruments of knowledge - oral and written expression, reading and arithmetic; the development of intelligence, artistic appreciation, and manual, physical and sporting abilities. It offers an initiation into the plastic and musical arts, and in conjunction with the family, a moral and civic education.

2.55 The structure of secondary education was changed in 1975 to take place in 3 types of institutions. The first is the Comprehensive College open to all pupils who have finished primary school. The College course lasts for 4 years,and classes are not streamed according to ability. The stated aim of the College is to provide all students with an education continuing on from that in the primary school, inducting the pupils into the culture and contemporary society. It rests on a balance of disciplines, intellectual, artistic, manual, physical and sporting, and provides for the development of individual aptitudes and interests. It is intended to provide the basis for both general and vocational education, whether this follows on immediately or is pursued later in life on the principle of recurrent education. Remedial teaching in basic skills is available for those in difficulty.

2.56 After completing College, pupils may continue on to Vocational High Schools, also established in 1975, which provide a vocational education, or to Lycees which offer a 3 year course leading to tertiary entry. Thus while the compulsory stage of secondary education is comprehensive, streaming into different schools with vocational or academic emphasis is resumed at the post-compulsory level.

Management and Control

2.57 The curriculum is laid down at the national level, and teachers must use the national syllabus developed for each subject. Inspectors are responsible for curriculum in all subjects in primary and secondary schools. The curriculum is determined by a meeting of the Inspectors-General, which discusses the general goals of the government in education in respect of the national curriculum. Inspectors-General for each subject then draw together Working Parties of which they are Chairmen, to develop syllabuses in their subjects. The Working Party for English in 1982-83 consisted of 2 Inspectors, 2 professors, and five secondary teachers. This composition is typical of the committees. For several years during the 1970's inspectors engaged in a number of discussions with teachers about the diversification of the curriculum in the compulsory level College and post-compulsory Lycees, described previously, to deal with the mixed abilities of students entering these institutions. There is very little role for parents in the development and control of curriculum.

2.58 While all teachers must use the national curriculum as a basis, they do have the opportunity of selecting from a variety of textbooks and teaching materials. A special meeting is held in each school at the end of each year to select textbooks. However, it must take into account the fact that textbooks are paid for by the state and therefore should only be changed at the College level once every 4 years. At the Lycee level there is more latitude, and teachers may select texts which have been adapted to meet the needs of students. Team teaching and team development of school syllabuses based on the national program are practiced in a number of secondary schools.

Content

2.59 The primary schools teach maths, French, writing, manual activities, arts, approaches to the natural and social sciences in the form of history and geography, physical education and sport, and moral and civic education. Teaching is adapted to the ability of the pupils and remedial education is available.

2.60 The Colleges created by the 1975 Education Act, aim to give all students the same cultural base, and to prepare them both scholastically and professionally. To achieve the first objective, classes are unstreamed. To achieve the second, they have options taken according to aptitudes and preferences, and some of these options are technological and prevocational. The College consists of 2 cycles of 2 years each. For the whole of the 4 years students follow a common curriculum in French, maths, a foreign language, history/geography/economics/civics, experimental sciences, arts, manual and technical education, and physical education. During the first 2 year cycle they can add extra hours in languages, French and maths. In the second cycle they add an optional subject chosen from Latin, Greek, a second living language or a range of technological and prevocational options. They may also elect to take an alternative course of pre-apprenticeship or vocational studies.

2.61 There have been several investigations of the operation of the Colleges since their creation. One, carried out by a committee chaired by Professor Louis Legrand, found that the Colleges were less comprehensive than had been intended, and that the mixed ability groups were not altogether mixed. One third of those entering the Colleges did not manage to complete 4 years, many repeated years, and many were channelled into practical and technical studies. Legrand recommended varying the size and style of teaching groups, ensuring mixed ability groups for all subjects except maths, French, and foreign languages.

2.62 A report from the Inspectorate on the state of the Colleges in 1979-80 confirmed that there were in effect 5 types of College. Those that had been developed from former Lycees produced more students who went on to the Lycees and the Baccalaureate, whereas Colleges in working class areas tended to channel students into technical schools at the end of the first 2 year cycle, before they had finished the College course. Recent reports show that the number of working class students diminishes at each level of the education system. The child of a blue collar worker has 4 times less chance of passing the Baccalaureate than the child of a professional worker or executive. This however, is a greater chance than 20 years ago.

2.63 The vocational high schools, or Lycees D'Enseignement Professionel, created in 1975, admit students at 2 levels, the third year of the College course, or on completion of 4 years in College. They prepare students for the Diploma of Professional Studies (BEP), a broad based qualification for professional, industrial, commercial, administrative or social work; or the Certificate of Professional Competency (CAP), a more narrowly based training for a particular vocation.

2.64 The Lycees prepare students for the Baccalaureat, or the Baccalaureat de Technician. The Baccalaureat course, which is a preparation for university entry, offers opportunities to study in the areas of philosophy/letters, economic and social sciences, maths and physical sciences, maths and biological sciences, and maths and technology. The Baccalaureat de Technician provides both a general and a professional education, qualifying graduates to go straight into certain professions or enter a university for further study. It comprises 3 series and 15 options, in the areas of economics, information technology and a wide range of industrial, medico-social and musical subjects. Students may also take a course leading to the Brevet de Technician (BT), a licence to practice a particular profession.

2.65 In 1982 the Minister announced that for an experimental period of 3 years the country's regional dialects may be taught at all levels of the school program. For the youngest, local history in the regional language can be taught. At the college level, the local language can figure on the school program for 1 hour a week if demanded by 15 pupils, and in the Lycees, a local language may be offered as a Baccalaureat option. These languages include Alsatian, Basque, Breton, Catalan and Occitan. Immigrant languages are not included in this initiative, as there is already an established network of out of school classes, particularly in Arabic.

Examinations and Assessment

2.66 There is no examination for entry into the Colleges or the majority of upper secondary schools. All examinations for certification at the end of schooling at each level, for entry to the public service, and for entry to tertiary institutions, are organized by the Ministry of Education, in some cases in conjunction with the major universities. Centrally administered external examinations are the mode of assessment used. Diplomas are granted by the government. Public examinations are open to all students. Private schools, attended by 15% of students, may offer their own diplomas, but these have no official value unless they are recognized by the government.

2.67 The Baccalaureat and Baccalaureat de Technician examinations qualify those who are successful for tertiary entry. While traditionally all Baccalaureat holders have been entitled to a tertiary place, in practice there is intense competition to gain results good enough for selection into the grandes Ecoles, the most prestigious institutions in the tertiary sector, and into the highly regarded faculties in the universities. Rigorous selection by merit is practiced by these institutions, although there have been recent discussions on widening recruitment to them. External, centrally administered examination systems are accepted, and those successful in them are highly regarded in France. This is consistent with the country's traditions of the state being responsible for major decisions in education, including selection of future leaders and provision of courses suitable for their training.

ENGLAND AND WALES

Aims and Philosophy

2.68 The legal basis of the education system of England and Wales is the 1944 Education Act and a number of subsequent acts and regulations which form the basis of the system of compulsory education up to the age of 16. Britain traditionally has a very decentralized system, with each Local Educatoin Authority (LEA) and individual school responsible to a large extent for the development of its own curriculum and the aims and philosophy underlying it. In recent years there has been increasing interest in developing a national approach to the curriculum. In 1980 the Department of Education and Science and Her Majesty's Inspectorate (DES) published discussion documents on the curriculum, and widespread consultations ensued. As a result of these, in 1981 DES published 'The School Curriculum', which offered guidance to LEAs on how the school curriculum could be further improved for the whole period of compulsory education.

2.69 In this document, it was stated that the education system had the fundamental aim of serving the individual needs of each student and helping all children to realize their full potential. This aim is embodied in the 1944 Education Act's reference to the duty to secure an education suited to each pupil's age, ability and aptitude. The major economic and social concerns of the 1980s are reflected in 'The School Curriculum' document, which reflects the conservative government's view concerning the need to strengthen vocational education. It states that since education prepares the child for adult life, the way the school helps him fulfil his potential must be related to what he will later want and be called upon to do in society, and must prepare him for the realities of the adult world. The future of the children and the country depends heavily on education in view of technological change and an increasingly competitive world economy.

2.70 Broad educational aims are

- to help pupils develop lively enquiring minds, and the ability to question and argue rationally.
- to acquire knowledge and skills relevant to adult life and employment.
- to use language and number effectively.
- to acquire respect for religious and moral values and tolerance of other races, religions and ways of life.
- to help them understand the world in which they live and the interdependence of individuals, groups and nations.
- to help them appreciate human achievements and aspirations.

2.71 These broad aims are recommended as a checklist against which LEAs and schools can test their curricular policies. Each school has to judge how best to respond to parents' aspirations, the expectations of employers and the further education system, the evolution of educational thinking, and economic and social change. It must devise priorities that ensure that each pupil can be offered a broad program that is balanced, coherent, and suited to his needs. The document further states that what is taught in schools must appropriately reflect fundamental values in British society. Three main issues are isolated - multiculturalism, equal treatment of the sexes, and the effects of technology on employment, which necessitate adaptability and self reliance.

Management and Control

2.72 The Education Act of 1944 lays upon the Secretary of State of the Department of Education and Science the duty to promote the education of the people of England and Wales. Actual responsibility for educational provision, however, resides with the local Education Authorities. The Act requires that these local authorities secure the provision of efficient and sufficient primary and secondary education to meet the needs of their areas. LEAs are primarily concerned with overall policy, physical provision and the allocation of resources. It is the boards of governors of individual schools who have the power over the general direction and oversight of the conduct and curriculum of the school, and this is usually devolved on principals and staff. Thus there is a strong tradition in the UK of school-based management and control of the curriculum. However, the freedom of schools and teachers to determine the curriculum has been constrained at the secondary level by the system of external examinations taken at the end of compulsory schooling and, after sixth form, for tertiary entry.

2.73 It has also been affected quite severely by political decisions taken at the central level regarding the type of school organization LEAs are expected to foster. The battle between selective and comprehensive secondary schools mirrored the political philosophies of the Conservative and Labour governments, and was fought bitterly. The system of universal secondary education established after the 1944 Act was a tripartite system of academic grammar schools, technical secondary schools, and non-academic terminal secondary modern schools, each having a curriculum suited to its stated purpose and the nature of its clientele. In practice this was a binary system as very few technical schools were established. Selection for grammar schools was made on the basis of an examination at 11+, which also placed constraints on the curriculum of the primary schools.

2.74 During the 1960's Labour governments adopted a policy of the abolition of the 11+ examination and the establishment of comprehensive secondary schools. A circular was issued by DES to the LEAs recommending that they reorganize their secondary education systems along comprehensive lines. While this circular did not have the force of law, since the local authorities were responsible for the provision of education within their own areas, most LEAs complied with the request, and by the early seventies a large proportion of secondary schools in Britain were comprehensive, offering a full range of subject and examination possibilities to all ability levels. In a few cases, LEAs developed a two-level secondary school, with a comprehensive 'middle school' serving the compulsory secondary years and a sixth form college serving the post compulsory years.

2.75 The circular urging comprehensive schools was revoked by a Conservative government in 1970, but was given the force of law in 1976 when a Labour government passed an act requiring local authorities to 'have regard to the comprehensive principle' in their provision of secondary education. This compulsion was removed by a Conservative government in 1979, which passed an act allowing local authorities to decide the pattern of secondary school organization which accorded best with local needs and wishes. At this stage, however, it was estimated that 86% of all secondary students were in comprehensive schools. The current situation is one of a diversity of types of provision at the secondary level, with a majority of comprehensive schools, but some areas having differentiated provision, and others having separate sixth form colleges or Further Education Colleges catering for the post-compulsory age group.

2.76 The operation of schools in the curriculum area has also been considerably influenced by the work of the Schools Council for Curriculum and Examinations. The Schools Council grew out of recognition in the early 1960's that the traditional autonomy of British schools tended to have a limiting effect on any large scale curriculum development in areas of interest to many schools and that a mechanism was needed to organize a more rapid and effective response to change.

2.77 In 1963 a representative meeting, chaired by the Minister for Education, discussed this need for new machinery for cooperation in the fields of school curricula and examinations. A working party was set up to examine the lines on which action might be taken and its report recommended the establishment of a new body, the Schools Council for the Curriculum and Examinations. Control of this new cooperative machinery was to be vested in a free association of equal partners representing all the principal education interests, but with a teacher majority.

The Schools Council came into being in October 1964. Its role was not to determine the curriculum which any school should use, but to make available a wide range of materials and suggestions which schools might adopt or adapt as they felt to be desirable. The terms of reference of the Council required it to uphold and interpret the principle that each school should have the fullest measure of responsibility for its own curriculum, and to seek, through cooperative study of common problems, to assist those with responsibility for the schools' curricula and coordinate their actions in harmony with this principle. In order to promote these objectives, the Council was to keep under review curricula, teaching methods and examinations and draw attention to difficulties which appeared to merit consideration, to discuss with schools ways it could assist them by research and development, and offer advice on request.

2.78 The Schools Council operated through an interlocking structure of policy and executive committees. It had a series of Curriculum Steering Committees covering all areas of the school curriculum, each committee having a majority of teachers. A revised constitution was adopted in 1968, reorganizing the committee structure and strengthening the teacher majority. In 1978 the Schools Council again adopted a new constitution. The Council had three main committees - Convocation, which kept the curriculum and examination system under review; the Professional Committee, responsible for the execution of the work of the Council; and the Finance and Priorities Committee, responsible for broad direction and policies. The three major committees were assisted by 5 other senior committees, for Wales, Publications, Examinations, Primary Curriculum, and Secondary Curriculum, as well as a network of working parties and 15 subject committees. The Council's 5 main programs were purpose and planning in the schools; helping individual teachers; developing curriculum for a changing world, developing basic skills and preparing for life after school; helping individual pupils; and improving the examination system.

2.79 Within the framework of the authority of local authorities and boards of school governors over curriculum, political decisions about the form of secondary school organization LEAs should foster, and influences over curriculum development exerted by the Schools Council, teachers themselves largely decided what should be taught to children and how. This remained unquestioned until comparatively recently. In the mid-late 1970's, however, there developed considerable controversy over the effectiveness of teaching in schools and the suitability of curricula in relation to changed economic and social circumstanes, including technological change and the escalation of youth employment. Aspects of this Great Debate about education included a widespread criticism of teachers, the control teachers had over the curriculum, and the dominance of teachers on the Schools Council. Since 1975 the locus of power has been shifting away from teachers towards central sites, notably, though not exclusively, the DES. In the process a national framework for curriculum started to be developed. The reasons DES set out to establish this framework have been attributed to the assemblage of opinion in the mid 1970's calling for consolidation and concentration of responsibility for curriculum and examinations, and the reservations held by DES about the Schools Council. This centralizing tendency during the 1970's has resulted from a backlash against progressive education and school autonomy, the accountability movement, and the contraction of public finance.

2.80 An Assessment of Performance Unit (APU) was set up by DES in 1975. It carried out tests of mathematical development in 1978, English language development in 1979, and scientific development in 1980. DES also set up the Bullock Committee of enquiry into reading and the use of English, which reported in 1976. These moves reflected the developing concern of the DES with educational standards and the effectiveness of teaching and curricula. The APU was established to provide information about general levels of performance and how they change over the years and identify areas of particular concern. An Educational Disadvantage unit was set up at the same time to serve as a focal point for consideration of matters connected with educational disadvantage.

2.81 In 1979 the DES published a report, 'Local Authority Arrangements for the School Curriculum', summarizing LEA responses to a circular requesting information about their curricular policies and practices. It also announced that the Education Ministry intended to seek a national consenus on a desirable framework for the school curriculum. Early in 1980 a consultative paper,'A Framework for the School Curriculum', was published, setting out views of the essentials of education during the compulsory years. After consultationsand discussions on this document, DES published 'The School Curriculum' in March 1981. This paper urged local authorities to frame policies for the school curriculum, analyse its curricular aims and set them out in writing, and regularly assess how far the school programs measured up to these aims. It made specific recommendations for primary and secondary education in respect to general goals and content and matters of special concern to which all curricula should attend. The broad aims for curriculum outlined in the paper have already been described. (Paras 2.70-2.71)

2.82 This paper marked a move towards a national framework of policy on curriculum and a unilateral interpretation of the statutory basis of curriculum authority by DES, whereby it could take an overview and determine national needs. It affirmed the legal responsibilities of LEAs to interpret national policies and of individual schools to determine school level policies and procedures. The imposition of this national framework has been resented by the teachers unions and some parts of the LEA system for its intrusiveness into an area previously felt to be their own concern and not part of the brief of DES.

2.83 However, the DES rather than the Schools Council was able to take the initiative in moves towards a national curriculum framework because of public concern, and political criticism over the work of the Schools Council in the late 70's and in particular its perceived domination by teachers organizations, its large size and strongly representative membership, its expense, and the fact that the DES and some LEAs felt that their views were not properly considered under its existing structure. A yellow paper outlining such criticisms led to the 1978 reconstitution of the Council.

2.84 There was also a political desire on the part of the Thatcher Conservative government to eliminate Quasi-government Organizations (Quangos) such as the School Council wherever possible. Consequently, Mrs Tremanan, an Oxford don, was asked in 1981 to conduct an enquiry into the Schools Council and its future. Her report contained recommendations about the Council's constitution and methods of work and proposed a streamlining of some of its committees, but did not recommend that it be disbanded. Mrs Tremanan's report, however, was not accepted by the government. In April 1982 the Secretary of State for Education and Science announced proposals to replace the Schools Council with two new bodies: a school curriculum development council and a secondary examinations council.

2.85 The composition of these two councils was to be quite different from that of the Schools Council. The members of both were to be appointed by the Secretary of State. They were not to be representative of any organizations, although among the appointed members would be people from LEAs, higher education, the teaching profession, industry and commerce. The size of the Examinations Council was to be restricted to 14 members. Its major functions were to be to supervise exams run at 16+ and 18+ by the GCE Boards and to advise the government on the examinations system to ensure that it met the needs of the education system and its clients, higher education and employers. The Curriculum Development Council would be funded jointly by the DES and LEAs, but would have a tighter budget than the Schools Council. Negotiations were commenced on the structure of this body.

2.86 The Schools Council objected to the appointment of members by the Secretary of State, claiming that it would give one person huge powers to influence and control the country's schools. Teachers organizations also objected to the proposed new structure. Allied with the unilateral assumption by the DES of responsibility for determining an overall framework for school curricula, the disbanding of the Schools Council appeared to herald a major shift in the locus of power over the curriculum and an erosion of the position of teachers and individual schools. It is also significant that the Secondary Examinations Council was established first. Control of curriculum through the examination system rather than through curriculum development processes became a strong possibility.

2.87 In spite of these objections, the two new bodies were established during 1983. Highest priority was given to the creation of the new examinations board. The Secondary Examinations Council was appointed in June 1983. The Schools Council continued in existence until November, although it initiated no new research work in the expectation that it would soon be wound up. In late November 1983 the Secretary of State announced the membership of the new 22 member School Curriculum Development Committee (SCDC). All appointments, except for those from LEAs, were made on a personal basis, not as representatives of any groups or organizations. There were no classroom teachers on the new committee , although there were some school principals. In describing the way he saw the new Committee's role, its chairman, Professor Roger Blin Stoyle, said it would offer schools guidance on how to achieve a balanced curriculum and advise them on the construction of a central core of subjects. It would serve a catalytic role, creating consenus about the broad structure of the curriculum. Some projects were inherited from the Schools Council, and it was anticipated that 3 of them would continue unchanged.

2.88 Another major shift in the locus of power over the management and control of the curriculum has been the emerging position of the Manpower Services Commission (MSC) in relation to technical and vocational education, mainly with regard to the post-compulsory age group, but also in relation to the curriculum for 14-16 year olds. The MSC has introduced a Technical and Vocational Education Initiative (TVEI) to provide technical and vocational education for 14-16 year olds in compulsory secondary schooling. Funds are provided to LEAs to provide these courses, and it has been seen as a major incursion into the responsibilities not only of the LEAs, but the DES as well. Despite the verbal outbursts against the procedure, the lure of the money proved overwhelming. 60 LEAs are cooperating in the program. The MSC has also introduced a Youth Training Scheme which provides a combination of work experience and training for unemployed school leavers. The influence of the MSC over post-compulsory vocationally oriented education is to be strengthened even further following the release of a White Paper, 'Training for Jobs' in February 1984. This paper proposed the MSC as the body primarily responsible for all such training, and announced that a large proportion of funds for non-advanced further education will be transferred from the LEAs to the MSC so that it can have more control over which courses are funded. This initiative enhances the role of the MSC as the arbiter of vocational courses, and is seen by some LEAs as a massive move towards nationalizing the education service.

2.89 The government also initiated in 1980 the National Microelectronics Programme, a $9million development to give schools and colleges a better understanding of the applications of microelectronics. Under this program, a number of co-ordinated projects are commissioned through various organizations, with priority to curriculum development, teacher training and production of software. Other bodies including the Business and Technical Education Council, the Royal Society for the Arts, and the City and

Guilds of London Institute, develop, examine and certify vocational courses for the post-compulsory age group. These courses are offered in a large number of schools and sixth form colleges.

Curriculum Development

2.90 Since authority over the curriculum resides with local authorities and the Boards of Governors of individual schools, they are entitled to choose any materials they see fit in the implementation of their curriculum. Consequently there has never developed any central authority for vetting, approving, authorizing or choosing the texts and materials used in schools. In theory every school may be responsible for its own curriculum development. Her Majesty's Inspectors review and report on the content and value of the education provided in all schools and advise LEAs, schools, and the government. Curriculum materials and guidance for school-based research and development have been available to teachers through the Schools Council and the Schools Committee for Wales. Northern Ireland has a Council of Educational Development which is responsible for developing the curriculum.

2.91 In practice the Schools Council was very successful and the curriculum materials developed under its aegis have been widely used, in fact, the Council has been the major force in curriculum development over a long period. The Council prepared teaching materials, reports and studies, most of which were published by ordinary publishers who contributed the working capital for production and marketing. It was estimated in 1982 that one in 3 secondary teachers used at least one Schools Council project, as did 80% of primary schools in England and Wales. The Council also supported pilot projects and local curriculum development activities within particular local authorities and acted as a clearing house for curriculum information and dissemination.

2.92 The procedures adopted by the Schools Council are significant. The pattern for curriculum development projects was that a proposal was put to the Council, a director was appointed, a team selected and the aims of the project clarified. 3-5 years were spent devising materials and trying them out in selected trial schools. The materials were revised in the light of the schools' comments. Key teachers and teacher trainers were then brought together to ensure that they understood the implications of the new materials and could train others in their use. During the 1970's a perceived need for concurrent evaluation led to the appointment of full time evaluators in project teams, and recognition of the importance of dissemination and inservice training led to the allocation of amounts of money for these purposes in the grants for projects. Teachers were seconded for 2 or 3 years to the project. The Council also commissioned research work on aspects of the curriculum by individuals in other institutions. During the 1960's and early 1970's the emphasis was on large-scale curriculum development projects. However, in later years fewer large-scale projects were funded, yielding place to a large number of locally-based activities, with the Council disseminating their results and the materials emanating from them.

Content

2.93 Because of the decentralization of responsibility for curriculum in Britain it is not possible to describe in detail an overall curriculum followed by students in all schools at primary and secondary levels, or until very recently any agreed framework within which it is offered.

In Wales, where schools are in predominantly Welsh-speaking areas, the main language of instruction is Welsh, and bilingual schools operate in those parts of Wales where English predominates. The government recognizes the need to make proper provision for teaching Welsh language and culture, and a section of the 1980 Education Act empowers the Secretary of State for Wales to make regulations providing for the payment of grants for this purpose.

2.94 Under the Education Act of 1944, all schools must include religious education in their curriculum and must begin each school day with an act of collective worship. Religious education is non-denominational and must be in accordance with an 'agreed syllabus' drawn up by a statutory conference convened by a local Education Authority with a membership representing both lay and religious interests. Revisions of the agreed syllabus are made in the same manner. It has been necessary to revise RE syllabuses in recent years to take account of the changing character of British society. Many areas now have multi-racial and multi-faith populations. Pupils in publicly maintained schools may be withdrawn from the act of worship or RE if their parents wish. Voluntary aided schools, which are usually established by religious denominations but funded by the LEA, provide denominational religious instruction, but parents may opt for their children to receive non-denominational teaching in accordance with the agreed syllabus for the area. There is no national statutory requirement for the inclusion of any subject in the curriculum other than religious education.

2.95 Education in computers has received considerable attention from both government and industry in recent years. The Microelectronics in Education Program, launched in 1980, and the Department of Industry's Micros in School scheme, launched in 1981, aim to provide students in all schools with basic computer education and put a microcomputer into all secondary schools.

2.96 Careers education has also gained a position of some importance in schools. Each local authority is required to provide, under arrangements controlled by the Secretary of State for Employment, a careers service for all young people attending an educational establishment for which it is responsible. The Careers and Occupational Information Centre (COIC) of the Manpower Services Commission issues publications and materials for careers education in schools. Vocational education for 14-16 year olds is becoming an increasingly important feature of the curriculum offered in some secondary schools, with funding provided by the Manpower Services Commission.

2.97 The curriculum offered in secondary schools is affected by the syllabuses for examinations offered at 16+ and 18. There are a variety of syllabuses and styles of examining, with little common core and little coordination. There are 2 major examinations which can be taken at 16, the General Cerificate of Education 0-Levels and the Certificate of Secondary Education. These are not standard throughout the country, however, with 8 different GCE Boards and 13 CSE Boards responsible for the examinations within their areas. A great diversity of subjects and syllabuses co-exist and there is no consistency in the description of subjects by different boards or alternative syllabuses offered and examined by a single board. The same subject title, such as 'English' or 'mathematics' may also reflect very different content.

2.98 In its document 'The School Curriculum', the Department of Education and Science has not only attempted to provide a framework of principles within which curriculum is to be offered, but has made concrete suggestions as to the development of elements of a common curriculum for all students in British schools during the period of compulsory schooling. In the primary phase it suggests that schools provide a wide range of experience and enable pupils to develop and apply the basic skills of language and mathematics in a variety of contexts. At the secondary level the paper recommends that all pupils should follow a broad curriculum, including English, mathematics, science, religious education, physical education, some study of the humanities and some practical and aesthetic activities. Most pupils should also study a modern language. Importance is attached to craft design and technology, and to the preparation for adult life, including working life. This statement constitutes the basis on which a core, or common, curriculum for British schools can be developed. Reaction has been mixed, and it has been suggested that the 'School Curriculum' lacks coherence, definition and clarity. Skilbeck (63) has claimed that the DES 'School Curriculum' document advanced a view of core curriculum that was inadequate for all students, has been rejected by professional bodies and could not be implemented. The Schools Council also produced a document, 'The Practical Curriculum', which attempted to provide a more practical guide to designing curriculum. What is evident is that there is some acceptance in Britain of the idea of a commonly agreed range of learning and experience which ought to form the basis of the school curriculum. Controversy remains over what it is and how it should be implemented.

2.99 During 1983 several reviews of particular subject areas were published. One was 'Secondary Science Curriculum Review: Science 11-16', the report of an investigation established in 1981 under the aegis of the Schools Council and with the sponsorship of DES. It recommended that all pupils in the last two compulsory years be given seven science lessons a week, that courses be trimmed of extraneous material, and that they be more technologically oriented. DES also published a consultative document on foreign language teaching. It dismissed language teaching in primary schools and maintained that the compulsory years of secondary schooling were the best starting point for action.

2.100 Curriculum for the post-compulsory age group presents a picture of fragmentation and lack of a common purpose. Academic courses in a limited number of specialized areas are taken by students seeking to achieve 'A' level passes and entry to tertiary education. Other post-compulsory students may take vocational courses in Further Education Colleges, or courses offered by such bodies as the City and Guilds of London Institute, the Royal Society for the Arts and the Business and Technical Education Council, which are offered in a number of schools and colleges. A large number of students take a one year course of general and prevocational education culminating in a Certificate of Extended Education, which has never been nationally validated. These courses are to be terminated and replaced by more directly vocationally related courses leading to a Certificate of Pre-Vocational Education.

2.101 What is evident at the post-compulsory level is a sharp division between the academic and the vocational, and some uncertainty as to what the vocational stream should comprise. It is also evident at all levels that the processes of determining what should be in the curriculum tend to follow decisions as to what sort of examination and certification should be offered, and to whom.

Examinations and Assessment

2.102 Like most other aspects of education in Britain, examining and assessment procedures present a picture of decentralization and diversity. There is an emphasis on external examinations at the secondary level, but no nationwide standardized system of examining with comparability right across the country.

2.103 The main external examinations for secondary school students are for the General Certificate of Education (GCE) and the Certificate of Secondary Education (CSE). The GCE was introduced in 1951 for the minority of students then selected as suited to an 'academic' education in grammar schools. GCE examinations are offered by 8 separate examining bodies in England and Wales, most of them connected with universities. Subjects are offered at ordinary and advanced levels, and candidates may take as many or as few as they like. Ordinary (0-level) papers are taken at 16, and advanced (A-level) papers are taken two years later in a few selected subjects only. The GCE examinations may also be taken by students at further educational establishments and by students abroad. The GCE grading system is as follows

- 0-level candidates are awarded one of 5 grades, A to E, or are ungraded in each subject. Grade E is the lowest level of attainment adjudged to be of sufficient standard for recording.

- A-level candidates may receive one of 5 'pass' grades, be eligible for 0-level grades A to C, or be ungraded.

The minimum requirements for entry to various forms of further and higher education are expressed in terms of GCE examination performance, and some professional bodies regard certain standards of performance in these examinations as equivalent to their own preliminary exams. The normal minimum qualification for entry to a first degree course is two passes at A-level. Other advanced education courses may require one or more A-levels.

2.104 The Certificate of Secondary Education examination was introduced in 1965 in the context of the move away from selective forms of secondary schooling and the increased number of students staying on at secondary school but not necessarily aiming for higher education. The examination is intended for pupils of about 16 who have completed 5 years of secondary education and are of average ability for their age. Any number of subjects can be taken. Pupils are awarded 1 of 5 grades, or are ungraded, in each subject they take. Grade 1 represents a standard of performance in the range covered by Grades A-C of the GCE 0-level. Control of the examination is in the hands of serving teachers on 13 regional examining boards throughout England and Wales. Papers are based on the normal work of secondary schools and vary in content from area to area, but the boards aim to set similar standards of attainment nationally by a variety of moderation techniques and statistical analyses. It is generally recognized, however, that inter-board comparability is low.

2.105 The defects of the dual system of examinations at 16+ have received considerable attention in recent years. There are too many different subject titles, sometimes concealing only marginal differences in syllabuses, and no proper relationship between overlapping grades on the dual grading system, which is itself a source of confusion to schools, pupils, parents and employers. CSE certificates have not proved to be as acceptable as GCE 0-level certificates, even when reflecting similar levels of attainment. The comparability of standards between subjects, boards and from one year to the next has been the subject of continuing investigation by the Schools Council, which established a Forum on Comparability in 1977. This Forum made a number of recommendations to improve comparability in 1979, including coordination in the use of subject titles and the development of a nationally agreed grade definition. In 1980 the Government announced that remedies would be found for the defects inherent in the existing examinations system by the development of a single system of examinations, provided this could be done without putting educational standards at risk. A necessary condition was the development of satisfactory national criteria for syllabuses and assessment procedures. Work on national criteria was undertaken by a Joint Council representing all GCE and CSE Boards, and preliminary proposals for criteria in 20 subject areas were widely circulated for comment.

2.106 In November 1982 the DES and the Welsh Office issued a statement of policy on examinations at 16+ which outlined proposals for a single certificate, tentatively titled the General Certificate of Secondary Education (GCSE). The main features of the proposed single system would be

- Certificates would be awarded on a single scale of 7 grades which would correspond to overlapping grading schemes of GCE 0-level and CSE.

- The single system would be administered by 5 groups of GCE and CSE boards, which would be responsible for preparing syllabuses, assessing attainment, determining grades, and awarding a common form of certificate.

- Syllabuses and assessment procedures would have to comply with national criteria prepared jointly by the CSE and GCE Boards and approved by the Secretaries of State.

- GCE Boards within each group would be responsible for maintaining the standards of the present GCE 0-level within the new scale of grades, and would need to be satisfied with the arrangements for awarding the top 3 grades. The CSE boards within each group would need to be satisfied with the arrangements for awarding the 4 lower grades in the new scale.

- The new examinations and their syllabuses would be intended for the top 60% range of ability among pupils of 16+, though they would be open to all pupils. Assessment procedures would be designed to reward the attainment of pupils whose marks would be likely to place them in the top 60% of candidates if an examination in that subject were attempted by pupils spanning the whole range of ability in the population. The examination would provide a certificate of achievement for those leaving full time education at 16+ as well as a basis for further study or training.

- The system would be administered by the 5 groups of examining boards, covering different areas, but would be required to accept entries from anywhere in the United Kingdom. These groups of existing boards would act as consortia. They would not lose their separate identity, but no board would act independently of its group or be a member of more than one group. Joint committees, equally representative of GCE and CSE interests, would oversee the operations of the group. LEAs, teachers and other organizations with a legitimate interest in examinations would be represented.

- Certificates would be countersigned on behalf of the Secretaries of State as an indication that syllabuses and assessement procedures were in line with national criteria. Examining groups would be expected to adopt uniform policies in relation to the age of entry, the timetabling of examinations, the publication of results, the grading of results, appeals, and the range of choice offered.

2.107 At present there are 3 modes of examining, board based or external; school-based and moderated by boards, and mixed. All modes would be permitted under the new system provided that syllabuses and procedures for assessment complied with national criteria. National criteria would be developed by a Joint Council and would define the aims of courses and the knowledge, skills and understanding to be assessed, the type of assessment appropriate, the grade description to be given, criteria for the inclusion of a subject, and criteria for the external moderation of school-based assessment.

2.108 A single form of examination has already been established in Wales under the auspices of a single examining board. The system used is one of differentiated exam papers, set at 3 levels. Students are nominated for one of the 3 levels by the school.

2.109 The Secondary Examinations Council, established in June 1983 as one of the bodies replacing the Schools Council, has the function of overseeing the examinations run at 16+

and 18+ by the Examinations Boards. It also provides general advice to the government on the examinations system and the extent to which it serves the needs of students, higher education and employers. The Secretary of State announced that he would come to a decision on merging the GCE and CSE examinations after he had considered the proposals of the Joint Council of CSE and GCE Boards and had been advised by the new Secondary Examinations Council. Negotiations were undertaken between these two bodies, and in December 1983 the Secondary Examinations Council came out unequivocally in favour of a single 16+ examination. The decision to implement the new examination was announced in June 1984.

2.110 As well as GCE A-level examinations in academic subjects which provide for tertiary entry, there is a range of other examinations which are provided by a number of different examining bodies and which can be taken by post-compulsory students. Prevocational certificate courses are provided by the Royal Society of the Arts and the City and Guilds of London Institute. The Business and Technical Education Council provides examination courses leading to a General Diploma. These examinations are open to all students and create problems of demarcation at the post-compulsory level, with some schools providing prevocational courses leading to these certificates, while some Further Education Colleges offer A-level academic courses. Further Education Colleges also offer a Certificate of Further Education for which examinations are conducted by Further Education Regional Examining Bodies.

2.111 To complicate matters further there was also a Certificate of Extended Education (CEE) which resulted from a 1973 Schools Council proposal to provide a terminal examination and certification for post-compulsory students who did not wish to take A-levels. Originally the CEE was intended as a single subject examination taken after one year on the basis of a general education. The Secretary of State set up a committee (The Keohane Committee) to investigate the CEE, and it made its report in 1979. The committee found that while one third of first year sixth formers took the examination, most took a prevocational examination offered by one of the previously mentioned bodies as well. The examination had not been used as intended, mainly because it had never received national validation and was unfamiliar to employers. The Committee recommended that the examination should become a preparation for employment, testing general vocational preparation, proficiency in basic skills, and career education.

2.112 In 1982, the government published '17+, a New Qualification', which set out proposals for a new Certificate of Prevocational Education (CPVE) to be offered to post-compulsory students not wishing to take A-level GCE examinations. The paper stated that the aim of the CPVE would be a broad program of general education with an emphasis on various types of employment, the development of personal attributes, and career education. The curriculum framework would include a common core of 60% of the time spent, consisting of maths, English, aspects of science and technology, and civics. The remaining 40% of time would be spent on optional courses in 3 broad vocational areas. In June 1983 the Secretary of State announced the establishment of a 14 member Joint Board for Prevocational Education by the Business and Technical Education Council and the City and Guilds of London Institute. This Joint Board was to oversee the establishment of the new certificate. Interim arrangements were made for the award of the certificate in 1984, based on existing Business and Technical Education Council, City and Guilds, and Royal Society for the Arts courses. The CEE was discontinued.

2.113 Controversy over the new certificate arose in respect to its relationship with the Youth Training Scheme, which offers work-based, subsidized vocational training for the age group, and also its effect on the rest of the school curriculum. In April 1984 the Joint Board published a discussion document which addressed the problems perceived in relation to the scheme and outlined the structure of courses and assessment for the certificate. A mixture of centrally set asessment and moderated local assessment for the certificate was envisaged. Pilot programs and a process of wide consultation are proceeding. The matter is not yet resolved.

SCOTLAND

Aims and Philosophy

2.114 The Scottish Education system can be distinguished from that of England and Wales by the fact that it is smaller, more cohesive, and less subject to conflicts of interest and ideology along party-political or functional group lines. While the system is similarly administered by local education authorities, there is less variation in the structure and type of education offered between regions. At the central level there is only one examining board and one curriculum council. Relationships between these bodies and the Scottish Education Department are harmonious and co-operative, as they are with the local authorities, and there is overlapping personnel in all important decision-making forums. The Secretary of State recognizes that guidance will be effective in influencing or reforming the curriculum only if the teaching profession and the education service as a whole take part, at the central level in shaping that guidance, and at the local level, in its interpretation and development for use in schools. It is recognized that curriculum development is necessarily and desirably a slow process of re-appraisal, consultation and persuasion. It proceeds on the basis of a partnership between government and the profession, in consultation with other interests, operating through central and local agencies. Such a partnership is intended to ensure that the formulation of advice and guidance is constructive and that the school curriculum matches the pace of social and economic change.

2.115 Scotland is more committed to the ideal of comprehensive education than are England or Wales, and almost all secondary schools are comprehensive. The view that students of all ability levels should be offered a constructive educational experience within the same overall framework and culminating in the same form of certification is reflected in recent changes affecting the 14-16 age group resulting from reports of the Munn and Dunning Committees of inquiry (76). These committees reported in 1977 and action on them began in 1980.

Management and Control

2.116 The Education (Scotland) Act confers on the Secretary of State for Scotland overall supervisory powers in relation to the provision of education, but confers upon education authorities the responsibility for the actual provision of education in their areas. The education authorities are the elected councils of the 9 Regional Authorities and the 3 Island Authorities. These authorities are responsible for the curriculum, although this responsibility is usually exercised by individual schools and teachers on their behalf. Within this framework, a good deal of autonomy is enjoyed by head teachers and their staffs. However, many agencies and bodies, official and otherwise, seek to influence the nature and content of the school curriculum.

The Secretary of State takes the lead in relation to overall balance in the curriculum and curriculum development. He therefore makes general guidance available to education authorities and schools.

2.117 In formulating general guidance, the Secretary of State regards HM Inspectors of Schools and the Consultative Committee on Curriculum (CCC) as his main sources of counsel. HM Inspectorate issue from time to time progress and other reports based on their program of inspection in schools and other institutions. The CCC's advice to the Secretary of State is based on recommendations emanating from its own committee structure and from other sources (e.g. national working parties, HM Inspectorate, the Scottish Certificate of Education Examination Board). The CCC also responds to requests for advice from other bodies (e.g. the National Committee on Inservice Training of Teachers). Under its terms of reference the CCC, in the light of social and economic change, is charged with keeping the curriculum under continual review and identifying any aspects which call for special investigation. Accordingly the CCC sustains a program of curriculum development based on identified priorities and makes available to education authorities guidance and information of a specific as well as a general nature. The Secretary of State, acting on the advice of the CCC, provides national guidance on curricula by issuing circulars, memoranda, and a series of curriculum papers.

2.118 The CCC was established in 1965 and reconstituted in 1976 and 1980, with increased responsibility for national curriculum development. Members are appointed by the Secretary of State on an individual, not a representative basis, for their expertise and knowledge, and are drawn from a variety of backgrounds in schools, colleges of education and other areas. The Chairman of the Scottish Certificate of Education Examination Board and the Scottish Council for Research in Education are ex-officio members. The CCC has 2 major standing committees, a Committee on Primary Education (COPE) and a Committee on Secondary Education (COSE) to keep the curricula of primary and secondary education under continuous review. COSE is responsible for co-ordinating the work of 8 Standing 'Central' Committees which advise on, and promote development in, major subjects and areas of secondary education. COPE is responsible for a number of Standing 'Scottish' Committees which do similar work in respect to primary education. Through its committee structure the CCC has produced a series of curiculum papers and bulletins on a variety of subjects - for example Curriculum Paper 15 'The Social Subjects in Secondary Schools', in 1976, which set out a general approach to teaching social subjects which has been elaborated in later Bulletins.

2.119 As part of its strategy for highlighting aspects of the curriculum which call for investigation and development, the CCC establishes long term projects. One of its major tasks in recent years has been the development of a program of implementation of curriculum changes in the lower secondary school as a result of the Munn and Dunning Reports of 1977 which recommended large changes in the curriculum and assessment procedures of the third and fourth years of secondary schooling. In 1980 the government announced that it would pursue a 3 year program of research and development work and consultation into the issues covered by the reports and to take a decision in 1983 on future arrangements.

2.120 Education authorities themselves have created their own structure for advice and development of curriculum through primary and secondary subject advisers, local working parties, and committees of advisers and teachers which meet regularly to exchange views and produce guidance documents. Many schools have their own structures through which general advice issued centrally or regionally is shaped and developed for the special needs of their own school community.

Curriculum Development

2.121 As well as providing curriculum advice, the CCC has a major responsibility for curriculum development. This is discharged through the provision of a Scottish Curriculum Development Service based on four centres at Aberdeen, Glasgow, Dundee and Edinburgh. The permanent staff of these centres include directors, curriculum officers, information officers, graphic designers and administrative and clerical staff, who are employees of the colleges of education at which the centres are located, assigned permanently to support the work of the CCC structure. They are supplemented by teachers and other relevant people seconded for limited periods. Each centre has certain subject and functional specialisms and is responsible for one or more development programs. Aberdeen specializes in modern languages and music, Dundee in home economics, maths, science, technical education and microelectronic technology, Edinburgh in English and physical education, and Glasgow in social subjects, business subjects, religious education and a large multi-disciplinary program, Education for the Industrial Society. In recent years the major emphasis of the Curriculum Development Service has been on projects of a multi-disciplinary nature, which include the Education for the Industrial Society project, a microelectronics project, and a project on Computing and the Curriculum. Emphasis is also on curriculum development for the 14-16 age group, following the government's 1980 decision to follow up the implications of the 1977 Munn and Dunning reports on curriculum and examinations for this age group.

2.122 The Scottish Curriculum Development Service also disseminates information and teaching materials and helps education authorities and schools undertake their own curriculum development. It provides advice on evaluation, audio-visual materials and the development and piloting of teaching materials, and makes books and materials available for reference.

Education authorities themselves devote considerable effort to curriculum development, and this is increasingly supported by colleges of education. These colleges provide support, resources and information for local curriculum development, often as part of their own in-service, research and development programs.

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2.123 Primary schooling in Scotland lasts for seven years, from the ages of 5 to 12 years. The transfer to secondary schooling therefore takes place a year later than in England and Wales. Primary curriculum is not centrally prescribed. Within the overall policy of the Education Authority head teachers are free to devise the type of education best suited to the circumstances of their pupils. Guidelines are set out in 'Primary Education in Scotland', a memorandum prepared by a committee representing the teaching profession, colleges of education and HMI's in 1965. HMI's carried out an evaluation of years 4 and 7 in 1980, published in the report 'Learning and Teaching in Primary 4 and Primary 7'. It evaluated language arts, environmental studies, maths, music, art, craft and physical education, and suggested areas for future development.

2.124 At the secondary level, all education authorities are committed to the principle of fully comprehensive education, and more than 99% of pupils attend comprehensive schools. In the first two years, students are given experience of a wide variety of subjects to see where their aptitudes, abilities and interests lie. Pupils normally follow a common course, although those with particular aptitudes or abilities may take additional subjects. The first year is unstreamed. In the second year there is usually some banding, setting or streaming in maths and modern languages. At the end of the second year, a preliminary decision is made as to which subjects will be taken for the Scottish Certificate of Education Examinations. Pupils may take a general course with a practical or vocational bias or a full certificate course. Most schools enable the two courses to be combined in one form or another, so that pupils may take certificate subjects in conjunction with more vocationallly oriented subjects. The general aim is to maintain a well balanced curriculum for all pupils whether studying for external examinations or not. In the third year the number of subjects studied is reduced, but the range from which they may be chosen is increased. Some pupils follow courses jointly designed by schools and Further Education Colleges as a preparation for adult life and an introduction to vocational skills while continuing general education. Religious education is compulsory, as in England and Wales. Gaelic must be taught in Gaelic speaking areas and is offered in many secondary schools as a second language. It is offered as a subject for Scottish Certificate of Education examinations at both ordinary and higher levels.

2.125 The curriculum for 14-16 year olds has in recent years been the subject of a great deal of attention and controversy as a result of the Munn report on curriculum and the Dunning report on examinations for this age group. New curriculum and assessment arrangements for the final two years of compulsory education are being developed as part of a 3 year program, announced in March 1980, 'The Munn and Dunning Reports : The Government's Development Program'. The CCC has major responsibility for this program, in conjunction with the Scottish Examinations Board.

2.126 The Munn report recommended that the curriculum for this age group should be based on the principles of balance, choice and flexibility, with a common core and options. It recommended minimum time allocations for subject areas to be taken by all pupils. Subject to the successful outcome of the development program, the intention is to introduce from 1984 a new system of overlapping courses and national certification with awards at Foundation, General and Credit levels in most subjects so that all pupils, whatever their ability, can feel they are being challenged to achieve worthwhile goals. Particular attention is being focussed on the design of Foundation level courses, with the objective of cultivating knowledge and understanding, developing a wide range of skills, fostering the development of the least able pupils, and preparing them to meet the demands of society. This aspect of the development program is based on the conclusions of the Munn and Dunning Committees that such pupils must be appropriately motivated, generally by techniques and content relevant to adult life and the world beyond school, as well as by the opportunity to advance beyond Foundation level. Pilot studies are being undertaken to show whether it is possible to provide courses that will satisfy the aspirations of such pupils, meet the needs of prospective employers and be worthy of the award of a certificate, as well as whether pupils taking a Foundation course would have reasonable opportunity to transfer to the corresponding General level course. The proposed General and Credit level syllabuses will seek to offer a greater challenge to abler pupils, and provide more appropriate courses for those in the middle range of ability. Existing O grade Scottish Certificate of Education syllabuses are being modified along these lines as part of the development program.

2.127 At the post compulsory level, students generally take 4 or 5 academic subjects in preparation for the Scottish Certificate of Education Higher grade. Those who have completed the Higher grade may undertake a course introduced in 1968 leading to a Certificate of 6th Year Studies. This provides for independent study and research in one or two subjects for particularly able students who wish to pursue an interest in some depth. It is not intended as a tertiary entry requirement. In 1979 the government published a consultative paper '16-18's in Scotland : The First 2 Years of Post-Compulsory Education'. This examined various educational options in the context of steadily rising levels of youth unemployment, in particular measures to increase post-compulsory participation, changes in the courses offered, collaboration between schools and colleges of further education and the possibility of developing new types of institution. As a result, a Scottish Certificate of Vocational Studies course is being piloted. This course has a modular structure and offers prevocational training in a number of areas. Employers in industry and commerce are represented on the committees which prepare the programs. The relationship between these courses and the Youth Training Scheme of the Manpower Services Commission is as contentious as it is in England between similar initiatives and those of the MSC.

Examinations and Assessment

2.128 The Scottish Certificate of Education Examination Board has had, since 1965, the responsibility for conducting examinations and awarding certificates relating to secondary education and advising the Secretary of State on matters relating to such examinations. The Board has 38 members appointed by the Secretary of State - a chairman, 33 members appointed from persons nominated by various educational bodies, and 4 members who have experience in industry or other qualifications thought suitable. This single board contrasts with the large number of GCE-CSE Examining bodies in England. Panels are established to prepare examinations syllabuses in different subjects. These panels are drawn from schools, universities and educational administrators. Once the syllabus has been prepared by the panel, it is sent to interested parties such as teacher organizations, and their responses are considered and modifications made if necessary. Interaction between the CCC and the SEB is achieved by means of Joint Working Parties. Where it is decided that a subject should be examinable, the SEB establishes a panel, and the CCC a Central Committee, and they meet as a Joint Working Party and make joint recommendations.

2.129 The Scottish Certificate of Education examinations have 2 grades, Ordinary and Higher. Candidates present for Ordinary grade exams in the 4th year of secondary schooling, and for the Higher Grade in the 5th or 6th Year. Awards in 0 grade subjects are made in 1 of 5 bands, A to E, and in Higher grade subjects in 1 of 3 bands, A to C depending upon the level of attainment demonstrated in the examination paper. A certificate is issued if a pass is awarded in one subject. The top 50% of the ability range normally presents for the 0 grade. The Higher grade exams correspond to the English A levels, but are usually taken a year earlier, and the more able usually take 4 or 5 subjects compared with the 2 or 3 taken by A-level candidates. Holders of Higher grade certificates qualify for entry to Scottish universities and tertiary colleges, and are also accepted at English tertiary institutions. They may also be exempted from the qualifying examinations for many professional bodies. The Certificate of 6th Form Studies may be taken by students who have completed Higher grade certificate exams. It is usually taken in 1-2 subjects and is intended to demonstrate ability to pursue independent study and reseach. Ranks are awarded from A to E. This certificate is not required for tertiary entry, but may be taken prior to, or instead of, university studies by students with a particular field of interest.

2.130 The Dunning report on examinations and certification in 1977 recommended that at the end of compulsory schooling substantial changes should be made to the examining and certification process. The basic proposition was that, instead of the 0 grade examinations providing only for the top 60% of ability, there should be some form of certification for all. Taken in conjunction with the Munn report on curriculum for this age group, the report's recommendations are forming the basis for a development program in both curriculum and certification which has large scale implications for schools. Three grades of examination will be offered, corresponding to the courses offered at credit, general, and foundation levels. The new form of examination will be offered for the first time in 1986, and the courses are to begin in 1984. Joint Working Parties of CCC Central Committees and SEB subject panels are working on the implementation program. Their work is being co-ordinated by a Steering Group representing the interests of the Scottish Education Department, the Scottish Examinations Board, the CCC and the Education Authorities.

CHAPTER THREE - NORTH AMERICAN COUNTRIES

CANADA - ONTARIO

Aims and Philosophy

3.01 The Ministry of Education establishes a common framework of goals and aims for education in Ontario and sets out, in a series of circulars, guidelines for the learning opportunities and programs that schools should make available through their curricula. This policy of issuing guidelines rather than detailed courses of study is based on the view that, to be effective, curriculum must be closely related to the characteristics and needs of pupils for whom it is planned. Thus, while the Ministry articulates broad goals, it is the responsibility of local school boards to formulate programs reflecting local needs and priorities within the overall rationale provided by the Ministry. The major responsibility for planning curriculum rests with the school, which must work within the boundaries of provincially and locally established purposes and priorities and involve the school community as much as possible.

3.02 For the primary and junior divisions of elementary schools the province-wide framework of goals and expectations is set out in Circular PIJI, 'The Formative Years'. This document postulates that these years are of paramount importance in providing basic skills, attitudes to learning and impetus for continuing progress. Recognition is given to the philosophical commitment of Canadian society to the worth of the individual. Significant research in Canada and abroad is also acknowledged as being of major importance, as are the viewpoints contributed by interested citizens through the cyclical review process. It is stated that the policy of the government is that every child has the opportunity to develop as completely as possible in the direction of his or her talents and needs. The government pledges to support an education that develops basic skills, knowledge and attitudes, that endeavours to provide a fuller life during a child's years in the primary and junior divisions and endeavours to nurture each child's growth so that each may be able to continue his or her education with satisfaction and share in the life of the community with competence, integrity and joy. It follows that the curriculum will provide for each child to acquire basic skills, develop confidence and a sense of self-worth, gain the knowledge and attitudes needed for active participation in Canadian society, and develop the moral and aesthetic sensitivity necessary for a complete and responsible life. It is also the policy of the government that each child have the opportunity to develop abilities and aspirations without the limitations imposed by sex-role stereotypes.

3.03 To achieve these goals the Ministry holds certain expectations regarding the nature of the programs offered in elementary education and the related responsibilities of staff. These include:

- planning and implementing programs consistent with the goals and expectations of the Ministry.
- assessing each child's learning on a continuous basis and where warranted, diagnosing difficulties and changing learning strategies.
- ensuring that each child experiences a measure of success in his or her endeavours.
- providing resources to allow for imaginative and varied activities.
- communicating with parents concerning each child's progress.

3.04 The goals of secondary education are outlined in the guidelines issued for various subjects by the Ministry, and were reviewed by the Secondary Education Review Project (SERP) which reported in November 1982. The SERP Report endorsed the goals of education as enuniciated by the Ministry in a 1980 publication, 'Issues and Directions'. These were to:-

- learn the basic knowledge and skills necessary to understand and express ideas through words, numbers and other symbols.
- learn to be resourceful and creative in acquiring knowledge, managing personal matters and coping with a changing world.
- develop skills and attitudes that will enable them to enjoy their work and be productive.

- develop self-reliance.
- acquire a feeling of self worth.
- respect the customs and beliefs of others.
- learn to respect their environment and use resources wisely.
- accept personal responsibility.
- appreciate and enjoy the arts.
- acquire habits and attitudes that will enable them to be fit and healthy.
- develop a personal set of values.
- appreciate the respsonsibilities and benefits of family life and the role the family plays in our society.

3.05 Analysis of responses to the report indicated that the public of Ontario expected secondary schools to provide students with a useful basic education that prepared them either for direct entry into employment or for post-secondary education. While recognising the need to take into account the wide variation in students' interests, capabilities and commitment, the Ministry was expected to ensure that the learning opportunities for students throughout the province were equitable, consistent, and of the best possible standard.

3.06 SERP stated that secondary education has historically been directed to the tasks of preparing young adolescents to develop the independence to act as concerned citizens and of preparing them for post-secondary studies where appropriate. In recent decades, two additional tasks have grown in importance. These are preparation for the world of work, and nurturing the young to the beginning of maturity in the context of a variety of social changes. A dynamic balance which respects the varying needs of young people in a changing, multicultural, and democratic society is aimed at. It claimed that Ontario must have in its secondary schools a curriculum that will provide a consistent, durable foundation upon which continuous integrated curricular renewal can occur.

Management and Control

3.07 As has been stated, the Ministry of Education is responsible for the establishment of curriculum guidelines for all age divisions of schooling from kindergarten to year 12, and for the various subjects. These guidelines are provided to local School Boards and it is their responsibility to develop them into courses of study and school programs. In some cases the guidelines become fairly specific. An example is the guidelines produced in 1978 for the secondary science curriculum, which are detailed and contain a large amount of obligatory material. In contrast, the guidelines developed for the first years of schooling, outlined in the previously mentioned publication, 'The Formative Years', are much less detailed, briefer and provide a broad outline only. As well as producing guidelines, the Ministry also assembles materials and resource books relating to these guidelines, whether they are specific or general.

3.08 At the local level, School Boards are democratically elected, with both parent and teacher representation, and it is at this level that these groups have a major input into the determining of curricula within the Ministry's guidelines. The implementation of curriculum guidelines by local school boards is supported by Ministry of Education Officials at provincial and regional levels. Ministry of Education project management teams, established for each set of curriculum guidelines, are responsible for planning and co-ordinating implementation activities at the provincial level, and disseminate guidelines, create awareness of the implications of new policy, monitor the implementation of the policy, co-ordinate activities related to French language education and monitor requirements for human resources and new skills. The Ministry of Education maintains 6 regional offices staffed by professional educators, including subject specialists, who assist the local School Boards in the development of curriculum on request. It is the responsibility of the Ministry's regional offices to ensure that each school board has a plan for curriculum implementation, including staff development, which is one of the most significant priorities of the curriculum development plans of the Ministry.

3.09 The Secondary Education Review Project (SERP) was established to conduct a thorough study of the province's secondary school system, focusing in particular on the credit system, content and organization of the curriculum, standards and discipline, and the role of the schools in preparing students for employment. The project was supervised by a Chairman who worked with 4 committees broadly representative of the Ontario education community, a Steering Committee, an Evaluation Committee, a Reaction Committee and a Design Committee. These were assisted by a secretariat within the Ministry of Education. A Discussion Paper was published in May 1981 and a large number of responses were received and analysed. The final report, containing 98 recommendations, was submitted to the Minister of Education in October 1981. The SERP Report has been the main influence on the secondary curriculum planning of the Ministry over the last 2 years.

Curriculum Development

3.10 The Development of curriculum guidelines is consistent with the model which results from discussions stimulated by a consultative paper issued by the Ministry in September 1982 (84). Reviews may be directed to testing the level of implementation of a new guideline or assessing the current state of certain programs as part of the data on which development decisions are based. Plans were announced in 1983 outlining the most significant curriculum development projects for the next several years. The preparation of guidelines involves seeking the advice and opinions of supervisory staff, principals, program consultants and other educators as well as analysis of research findings and reviews. Each curriculum committee working on a guideline is headed by a project manager from the Curriculum Development Division and includes staff seconded from the field for the project, educators identified by the Ministry to work part-time on the project, resource/technical people assigned specific tasks, advisory personnel nominated by professional groups, especially the Ontario Teachers Federation, and Ministry staff with responsibility for implementation and review Formal validation of a guideline is carefully planned to ensure adequate time for analysis and response. There is a continuous maintenance of links between the guideline development process and the producers of text books, learning materials and assessment instruments.

3.11 School boards and school staff design more detailed programs and courses to translate the guidelines into instruction. Some school boards do this better than others, and where their work is of a high standard it is placed on ONTERIS, (the Ontario Education Research Information System) to be made available to other boards, teachers and curriculum planners.

3.12 There are 3 firms which publish text books. Texts must be written by Canadians and printed in Canada. Materials are generally developed by professional educators, and are submitted to publishers. If a publisher wishes to have a book approved by the Ministry for use in schools, it is submitted to the Curriculum Branch of the Ministry for consideration. The books are examined by several evaluators using established criteria, and if they meet these criteria and are not considered to contain offensive material, they are approved for use in schools. English and French literature texts, which are selected by the School Boards, are exempt from this process. Textbooks are bought by the School Board for distribution to pupils, who return them at the end of each year. Students in year 13, however, buy their own books.

3.13 The Ministry provides School Boards with an annual list of approved text books, called Circular 14, from which to choose books for student use. When it is believed at the Ministry that an approved book is nearing the end of its useful life, it is marked on the list for 1-2 years to warn School Boards that it may soon be removed from the list.

3.14 Several reasons are given for this process of approval. Amongst these are that it promotes the Canadian text book industry; it ensures that material provided to pupils is in keeping with the curriculum guidelines laid down by the Ministry; it means that texts are kept up to date; and it ensures that students are not exposed to material in text books which the evaluators have judged to be offensive or discriminatory against particular ethnic or social groups. There is a Ministers Advisory Committee on Circular 14 which advises on text book policies. Two members of this committee are representatives of the Ontario Teachers Federation, one a parent, one from the Ontario School Trustees Council, one from the Ontario Association of Education Administrative Officials, two from the publishing industry and three from the Ministry.

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3.15 The curriculum guidelines for elementary schools are detailed in circular PIJI, entitled 'The Formative Years', which, as well as describing the aims and philosophy underlying education in the primary and junior divisions of Ontario elementary schools, sets out goals which learning experiences in the school should enable the child to achieve in a number of stipulated areas. In the primary division these include basic Arithmetic, measurement, geometry, listening, speaking reading and writing. In the Junior division levels of competence are prescribed for arithmetic, measurement, geometry, reading, writing, handwriting, listening and speaking. In both the primary and the junior divisions goals are set for perception and expression, drama, music, visual arts, physical education, health, values, decision making, the individual and society, science and geography and Canadian studies.

3.16 The content and organisation of the curriculum at the secondary level has recently been modified as a result of the SERP report. Before SERP, students received a Secondary School Graduation Diploma (SSCD) at the end of year 12 if they earned a minimum of 27 credits. The 27 had to include at least 4 English credits, 2 mathematics, 1 science, 1 geography, 1 history, 1 additional credit in the social sciences and 3 credits in Arts and/or physical and health education. Students who proceeded further were awarded the Secondary School Honour Graduation Diploma (SSHGD) for earning any 6 honour credits in year 13. The SERP report pointed out that there were problems associated with the awarding of 2 secondary school graduation diplomas. The existence of the year 13 diploma tended to reduce the importance of earning a grade 12 diploma, and since it was designed chiefly for students continuing to higher education, the perceived needs of its curriculum dominated secondary school programs. This imbalance was considered serious in view of the fact that only 24% of students earned the SSHGD, while 60% were awarded the SSGD. The report recommended that the 2 diplomas be replaced by a single diploma called the Ontario Secondary School Diploma (OSSD), and that the curriculum from year 7 to year 13 be revised so that the single diploma is achievable by the majority of students by the end of year 12. Curriculum guidelines would be developed to permit the design of courses for grades 9 to 12 at three levels of difficulty - basic, general and advanced, and to allow programs at all levels to be adapted to meet the special needs of students.

Credits were to be defined on the basis of 30 hours, and all courses established in multiples of the 30 hour credit unit. This would mean that a typical full year course of 120 hours would become a 4-credit course. Courses in all subjects were to be placed in compulsory or elective groups so as to ensure breadth in program and permit opportunities for concentration. The OSSD would be granted to students who earned a minimum of 120 credits. 56 credits would be compulsory - 16 in English and an additional 4 in either English or French, or, in French speaking areas, 16 in French and an additional 4 in English or French; 8 credits in mathematics; 8 credits in science; 4 credits in geography; 4 credits in history; 4 additional credits in the social sciences; 4 credits in the arts; and 4 credits in physical and health education. An additional total of 64 elective credits could be selected by the students from available courses, provided that they included at least 10 credits chosen from among the following: languages, family studies, business studies and technological studies. Elective credits could be earned in all subjects, including those named in the compulsory credit list, thus allowing for concentration in a specialised area of the curriculum.

3.17 Schools would be required to keep a record of scholastic achievement for each student on a common form called the Ontario Student Transcript (OST). This would indicate the names and common codes of all courses successfully completed, the credit value of each course, the level of difficulty of each course, the achievement of the student in each course, and an area of concentration fulfilled by the student if applicable. Areas of concentration would be recognised for all students earning at least 32 credits in Business or Technological Studies. Recognising that not all students would be able to complete the full secondary school program, the report recommended that a form of provincial certificate be available to students leaving school prior to achieving a diploma, provided that they had earned 8 credits in English or French, 8 in mathematics, 4 in science, 4 in geography, 4 in history and an [illegible]itional 32, totalling 60 credits.

3.18 Aspects of the curriculum which received attention in the report included the new computer/communications technology, and topics such as life skills which lend themselves to an 'across the curriculum' approach. It was recommended that the Ministry provide leadership in the effective use of the new electronic technologies, develop outlines for courses in the early stages of schooling, include information on the new techologies in the secondary school program, and pursue ways in which information technology may be acquired and applied to methods of teaching and learning. It was also recommended that life skills, the role of the Arts as interpreters of society, and morals and values education should be incorporated in curriculum guidelines and resource documents for appropriate subjects across the curriculum.

3.19 It was considered that in the social sciences curriculum there was an undue preponderence of Canadian studies, and consequently recommended that geography and history for grades 7-10 be reviewed to provide a better balance between Canadian and international content, and to ensure that Canadian studies were presented within a global context. The proposed curriculum revision, both through the social sciences and through emphasis in other areas such as language and arts, was to give emphasis to the concept of Canada as a homeland of many peoples in which diversity and shared values are both important elements. The resulting design was expected to reflect the fact that the French Canadian way of life provides a major avenue by which a Canadian identity can be assumed; foster an appreciation of multiculturalism by incorporating core units in some compulsory subjects so that an element of multiculturalism becomes part of every student's program; and include provision for learning about native peoples and life styles in their historical and present day context. Also in the social sciences, it was recommended that a new curriculum guideline be developed to provide students with an understanding of the political and economic structure of Canada.

3.20 Curriculum guidelines were to contain both subject content and clearly defined expectations regarding the skills, processes and evaluation procedures applicable at each level of difficulty, and to designate material as either 'core' or 'optional'. The Special Education branch was to be involved in the development of all curriculum guidelines so that suggestions to assist pupils with special educational needs could be incorporated. The amount of overlap between subjects in curriculum guidelines was to be reduced, curriculum guideline committees were to provide for informed input from groups such as business, industry, labour, universities and colleges in addition to teachers, and guidelines were to be updated regularly.

3.21 As a result of the SERP report, the two diplomas are to be replaced by the OSSD by 1990. Students entering secondary schools in 1984 will begin study on OSSD courses. The present credit definition of a minimum of 110 hours will be retained, and the number of compulsory credits for the OSSD will be increased to 16. These will be English (senior) 5; Mathematics 2; Science 2; French 1; Geography 1; History 1; Social Sciences (senior) 1; Physical and Health Education 1; Arts 1; Business or Technological Studies 1; totalling 16 credits.

No further restrictions on student choice will be imposed and students may choose electives from among the compulsory subjects as well as from other subjects offered by schools, for example in foreign languages, family studies, or vocational areas. The recommendation of the SERP report for courses to be offered for credit at 3 levels of difficulty, General, Basic and Advanced, has been accepted and the recommended Ontario Student Transcript is being designed. The present year 13 program will be converted to prescriptive, provincially designed Ontario Academic Courses (OAC's), which will provide common university - entrance courses. These may be counted as credits towards the OSSD or studied upon completion of OSSD and will be available to adults who have not completed the OSSD.

3.22 A provincial certificate will be available on request for students unable to complete the OSSD provided they obtain the following credits: English 2; Mathematics 2; French 1; Science 1; Geography 1; History 1; Physical and Health Education 1; Others 6; making a total of 15 credits. Guidance will be made compulsory in grades 7 and 8, and units on career and education-planning have been designed for the use of teachers.

3.23 In response to the SERP report's recommendation that curriculum guidelines be brought up to date at appropriate intervals, the Curriculum Development Division of the Ministry spent considerable time assessing the current state of the guidelines. The renewal of guidelines in a number of subject areas is being undertaken to reduce the number of guidelines from nearly 100 to 25. New courses which transcend the guidelines will require the approval of the school board and the Ministry. Guidelines will be developed at the 3 levels of difficulty - general, basic, and advanced.

3.24 The relationship between school and work has in recent years become a focal point for public concern. Major programs in Ontario for linking school and work include programs of Co-operative Education, Linkage, and Work Experience. Co-operative Education permits students to fulfill the credit requirements of up to 2/3 of a course or set of courses through related out-of-school experience, either on a job or in a voluntary social service agency, provided that this part of the program is monitored by the school. Co-operative Education is a method of introducing students to the world of work and ensuring that the content of school programs aimed at training is consistent with current practices in business and industry.

3.25 The Linkage program was introduced to encourage more students to enter apprenticeship or other training programs. It enables students entering secondary school to count some courses both towards a school diploma and toward qualification in any of 9 specified skilled trades (e.g. auto mechanic, cook, machinist). More occupations are being added to the list. The SERP report considered that although Linkage has attracted more students to apprenticeships, more needed to be done, in particular to make female students aware of the possibilities of the Linkage program. Under normal circumstances, to become apprentices, students must find an employer who will agree to train them. To be eligible for apprenticeship in most trades the applicant must be at least 16 and have completed Grade 10, but in practice some trade organisations require Grade 12. Employers are reluctant to accept students directly from school for apprenticeship programs, and workers compensation regulations also present some problems. As a result, openings for students to enter apprenticeships are too few, and apprentices are usually in their early 20's. For women opportunities are virtually non existent.

3.26 Work Experience programs generally consist of a student spending up to 4 weeks on a job related to his or her school training. The SERP report recommended that the Ministry of Education, in co-operation with other Ministries and with business, industry and labour, devise a policy that will clarify the respective roles of Linkage, Co-operative Education and Work Experience programs, and create opportunities for students to begin apprenticeshp and/or other work-oriented programs earlier and thus complete a significant part of such programs during their secondary school years. School Boards were to establish procedures for the participation of employer and labour representatives in the development of work-oriented programs. Co-operative Education courses offered for credit were to be designed so that the in-school component formed at least one-third of the credit value of each course. The Ministry was to encourage participation in Co-operative Education by providing funds to help school boards acquire resource persons to serve as placement officers in arranging programs with employers.

In response to the SERP report, both Linkage 1 (requirements for apprenticeship) and Linkage 2 (for college programs) are being built into the Business and Technological Studies guidelines for the OSSD. It is planned to continue to support Co-operative Education programs.

3.27 Both English and French are the official languages of Canada. Ontario is primarily an English-speaking province, although there is a significant French-based population. While English is the language of instruction used in most schools, some designated French language schools provide the whole school program in French. In these schools English as a second language is compulsory, and a recommendation to remove this compulsion in the SERP report was rejected. English language primary schools in Ontario provide core French programs, usually begun in grade 4, and immersion French programs in which students use the French language for up to 50% of their studies. The SERP report recommended that French be compulsory from grade 4 to grade 8, and that all schools should offer French from grades 9 to 12. Curriculum Guidelines were also to be prepared for a wider range of foreign languages. These recommendations were accepted by the government.

Examinations and Assessment

3.28 External province wide examinations at the end of secondary schooling were abolished in 1967. The current policy regarding student assessment is summarized in a Ministerial Circular which states that procedures for evaluating student progress should be sufficiently varied to meet the requirements of different individuals, courses, and learning environments, and that the most effective form of evaluation is the application of the teachers' judgement to a wide range of information gathered through observation and assessment. Schools generally perform assessments of pupils' achievement by a mixture of continuous assessment and formal examinations, which the SERP report recommended should be limited to 15 days of the school year. Requirements for entry to tertiary education and for other purposes are expressed in terms of numbers of required credits to be completed successfully in specified subjects. As has been described, (paras 3.20, 3.21) there is a system of compulsory and elective credits making up the secondary school system. The curriculum guidelines issued by the Ministry for each subject ensure that the content and standard of courses is comparable throughout Ontario, so that tertiary institutions, prospective employers and others can have a clear idea what standards of achievement have been met, and what content covered, in the subjects listed on the students' high school graduation diploma. The diploma has been in many cases supplemented by a Student Transcript which gives more detailed information about the student's progress and achievements. These transcripts vary greatly across the province and give different kinds of information, and it was considered by the SERP report that their diversity has hampered clear communication. The report recommended that schools be required to keep a record of scholastic achievement for each secondary student on a common form called the Ontario Student Transcript. The transcript should indicate the names and common codes of all courses successfully completed, the credit value, level of difficulty and achievement of the student in each course, and any area of concentration that has been fulfilled by the student. The response of the Ministry to this recommendation has been described. (para 3.21)

3.29 To assist teachers with assessment of students, the Ministry has published a number of documents such as 'Evaluation of Student Achievement' (1976) which provide sample evaluation methods. The Ministry is also developing, in co-operation with school boards, the Ontario Assessment Instrument Pool (OAIP). This consists of collections of carefully developed test items corresponding to school subjects. It is intended to provide assessment resources to help teachers evaluate student achievement and programs in all the major curriculum areas.

3.30 Beginning in 1977, the Ministry has conducted annually a series of provincial reviews, on a sample-survey basis, of all school systems. Each year, from 4 to 7 of the reviews have dealt with areas of the curriculum. For several years the Ministry has also made available, for optional use by school boards, a method for the co-operative review and evaluation of local school systems. This process involves both an internal and an external component in the form of an evaluation team organized by the Ministry. It has been proposed that the emphasis in future co-operative review projects be on program evaluation and that the test items from the OAIP be used to assist program evaluation by gathering data on student performance.

3.31 The Ministry has established a Provincial Advisory Committee on Evaluation Policies and Practices. This committee has a broadly based representation including the teaching profession, supervisory officials, trustees, parents, post-secondary institutions, business, industry and labour. It advises the Minister about evaluation programs, policies and practices and the concerns of the constituencies represented, and monitors the effectiveness of policies and practices in achieving the aim of quality and comparability of student achievement standards. The SERP report endorsed the provincial review program and recommended that all school boards regularly undergo a co-operative review process which would include a review of student evaluation methods. It also recommended continued development of the Ontario Assessment Instrument Pool with a view to having test items available for all major curriculum guidelines at each level of difficulty for grades 7 to 12. When the OAIP test items became available the Ministry was to use them on a large scale and sample-survey basis to monitor its programs and policies and report to the public. These recommendations were accepted by the government.

USA - NEW YORK CITY

Aims and Philosophy

3.32 The school system in the USA has traditionally served a number of functions. In a country comprised mainly of immigrants, for much of the twentieth century there was a focus on the school as a 'melting pot', welding the various diverse cultural and ethnic groups that made up American society into a cohesive national group with shared ideals of citizenship and loyalty to the nation. The comprehensive neighbourhood school was the centre of this approach. During the late 1950s and early 1960's there was an increased stress on academic performance, particularly in science and mathematics, in reaction to Soviet successes in space in 1957. Large scale curriculum development projects in science and mathematics were supported by the Federal Government as part of an effort to increase American expertise in these areas. The 1960's saw an increased awareness of the disparities of degrees of success in education between rich and poor and in relation to particular ethnic groups, notably blacks. Large scale 'compensatory education' programs were mounted to overcome the educational deficiencies of these groups. By the late 1960's and early 1970's the concept of compensatory education was increasingly challenged and there was a greater emphasis on self determination, diversity and choice. Large numbers of alternative schools and courses were developed in an attempt to provide for the interests, aptitudes and wishes of diverse groups of people. In the 1970's the less bouyant economic situation saw an interest in accountability and value for money in educational expenditure. Educational authorities were less willing to support programs that could not produce tangible returns in the form of results, and there was a backlash against the provision of courses and programs of a broad or 'progressive' nature. At the same time there was a growing concern that, in the name of 'progressive' education, the inculcation of basic skills was being neglected and the standards of performance of American students was falling. This backlash against progressivism and large scale spending on education was part of a broad disillusionment with the benefits of education which was also evident in the UK and Australia.

3.33 In the USA education is the constitutional responsibility of the states, and the Federal Government has no role in the overall general funding of schooling. It does, however, have considerable influence in the special purpose programs it funds for a variety of purposes, notably educational programs for the disadvantaged and career and work-related programs. These funded programs have been cut back in many areas over the last decade. Within each state except for Hawaii, the funding and control of education is decentralized, with local school districts being responsible for both administering their school systems and raising revenue to fund them. One of the consequences of the current concern with educational standards has been an increase in the importance of state governments in determining the general direction of school systems under their jurisdiction. Most states have in recent years introduced such measures as statewide minimum competency testing in basic skills. Many have also introduced legislation to combat such practices as sexism and discrimination against particular groups.

3.34 During 1983 the perceived weaknesses in schooling in the US received considerable attention as a result of the publication of a number of major reports and books. These included reports by the National Commission on Excellence in Education (117) the Task Force on Education for Economic Growth (116) the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education (118) and a book called 'Horace's Compromise: The Dilemma of the US High School' by Theodore Sizer (114). A common thread in most of these publications was a concern with defining and raising standards, reducing the range of electives and non-academic courses at the secondary level, and linking the goals of schooling with those of national economic growth and productivity. The National Commission on Excellence found that 25% of academic credits earned in high schools were for personal development or remedial courses of a diverse nature, and used the term 'cafeteria style curriculum' in which entrees and desserts were given the same value as, and often taken in preference to, the main course. It recommended a more rigorous academic program for high school students, greater reliance on standardized testing, more demanding texts, higher college entry standards, better preparation of teachers, and a longer school day and year. Reactions to this report and the other publications was mixed, with many educators endorsing the general thrust of the arguments, some claiming the criticisms went too far, and many pointing out the high cost involved in implementing some of the recommendations.

3.35 These reports, however, gave expression to a general tendency which had been evident in some school systems, including those of New York and California, over the preceding few years in curriculum and testing requirements. Since it is not possible to give a description of curriculum practices in all the states and school districts of the USA, we will attempt only to give a picture of developments in one large school district in which the impact of recent concerns is evident, the school district of the City of New York in New York State.

Management and Control

3.36 The New York City public school system is decentralized in its government. The New York Board of Education is directly responsible for service delivery in the high schools, special education services, and all support services. Elementary and Intermediate schools are under the leadership of individually elected school boards in 32 Community School Districts which administer school policy for the schools in their district in conjunction with the central Board of Education. The Office of Community School District Affairs serves as liaison for the central office in dealing with these 32 Community School Districts. The chief executive officer of the Board of Education is the Chancellor. There is a Deputy Chancellor for Instruction. Under him, the main offices concerned with the curriculum in schools are the Office of Bilingual Education, the Division of Curriculum and Instruction, the Office of Funded Programs, the Division of High Schools, and the Office of Educational Evaluation. The Chancellor determines courses and curriculum requirements for all schools, and these must be approved by the City Board.

3.37 The Community Boards consist of 7-15 elected members and appoint a community superintendant as the main administrator of the schools within the district. Community Boards may determine matters relating to the instruction of students in elementary and intermediate schools, including the selection of text books and other instructional materials, provided they have been approved by the Chancellor. The community superintendant carries out the policies determined by the Community Board.

3.38 The Chancellor is responsible for all high schools in the city, including academic, vocational and specialized schools, all special education programs and services and any city-wide programs which provide services to a substantial number of persons from more than one Community District. He is required to ensure that every Community District has available to its graduates further education in a comprehensive high school. The Chancellor is required to promulgate minimum education standards and curriculum requirements for all schools and programs throughout the city and to examine and evaluate periodically all schools and programs with regard to the maintenance of educational standards and curriculum requirements and their educational effectiveness. The Office of Special Projects operates programs for various purposes. These include the Instructional Enrichment Program, designed to improve students' analytical skills, and the Mastery Learning Program. The School Improvement Project and the Local

School Development Project are school-focussed programs sponsored by the Central Board of Education in conjunction with Community Districts and with outside assistance. Some federally-funded programs also enable schools in New York to offer certain courses.

3.39 An important influence over the degree of centralization in the New York City District has been the Gates Promotional Policy, introduced in 1931, under which students in grades 4 and 7 are required to pass on standardized tests of maths and reading administered city-wide in order to be promoted. New York has a turbulent recent history of struggle over community control of schools and the Gates program has had the effect of strengthening the influence of the central administration. In contrast to the decentralized nature of many other city programs, it is initiated, funded, supervised , and evaluated from the central office. Perhaps the most important centralizing influence comes from the very existence of a single standard for the promotion of students which forces individual teachers, principals and community superintendents to fall into line by adjusting instruction to the demands of this standard.

Curriculum Development

3.40 The Division of Curriculum and Instruction in the New York City Public School System is charged with the responsibility for providing leadership in design and implementation of curricula for all schools. It also provides support in the form of staff development and training, the development of new testing instruments, the implementation of tests administered citywide, the assessment and replication of pilot instructional programs, the coordination of cultural arts programs and the provision of audio-visual materials, broadcasting and library services. It provides curriculum bulletins for schools. Community Boards can choose texts from any source, provided they are approved by the Chancellor. There are a number of materials for specific purposes developed by state or federal bodies. These include bilingual programs, career education materials and some programs for the disadvantaged. A document entitled 'Minimum Teaching Essentials' is published by the Division of Curriculum and Instruction and distributed to all schools. This document outlines the minimum requirements in basic skills and content which must be taught within each curriculum area at each grade level.

3.41 The Division of Curriculum and Instruction has developed new curriculum bulletins tied to the new Gates' Production policy and the state-mandated minimum skills requirements. Workshops are held to aid instructional and supervisory staff. The Division has recently developed a number of new curriculum bulletins, in history, Spanish, maths, science and social studies.

Content

3.42 The elementary schools concentrate on the inculcation of the basic skills of reading, writing and mathematics and these are subject to city wide requirements. Under the Gates Promotional Policy, students in grades 4 and 7 must meet required standards of proficiency before moving to the next higher grade. In these grades students are given city wide tests in reading and mathematics. The California Achievement Test (CAT) is used for reading. Students reading more than 1 year below grade level in the 4th grade or more than 1.5 years below grade level in the 7th grade will not be promoted, regardless of their grades in other subjects. Similarly, students with maths scores more than 2 years below grade level will not be promoted. These students have the opportunity to participate in special remedial programs, after which they may take the test again. If they pass, they are promoted. Students who are not promoted are placed in 'Gates' classes of not more than 20, where they receive individualized instruction. The basic program includes 15 periods of reading and writing instruction and 8-10 periods of mathematics instruction each week. The instructional programs used are specifically designed to develop competency in the basic skills and are reviewed and approved by the Division of Curriculum and Instruction to ensure that they meet the basic curriculum requirements established by the New York City Board of Education. Elementary and intermediate schools also provide for instruction in the usual range of subjects in elementary science , social science, humanities, arts and crafts and physical education.

3.43 A problem with the Gates program is what to do with students who have been retained several times. In 1981, the first year of the program's operation, 30% of Gates students were held over for a second year. The most challenging case is that of the 7th grade students, where double holdovers are numerous and students are approaching dropout age. For those who repeat a second time the year is spent in a Gates Extension Program in which instruction shifts towards the vocational. Students who fail a third time are often simply promoted to high schools.

3.44 The Office of Bilingual Education develops and coordinates instructional programs for students with limited English proficiency. Full bilingual instruction has been established for each of the ten most spoken languages. The Bilingual Education Program is being adapted to the new promotional policy. Curriculum standards for bilingual programs are expected to parallel those of the general New York city curriculum in all aspects. The Office of Bilingual Education implements promotional policy testing for students enrolled in bilingual programs and has designed a remedial program for hold over students of limited English proficiency.

3.45 The zoned or "academic comprehensive high school" is the basis of the secondary school system in New York, and offers courses leading to college, technical school or employment. These schools combine the academic curriculum with career oriented and 'shop' courses and a selection of electives. There are also a number of vocational technical high schools, educational options high schools, specialised high schools and alternative high schools. Vocational-technical high schools prepare students for jobs in various trades as well as for admission to college or advanced technical school. About half the school day is spent in vocational education, with the remaining time spent in academic subjects. Programs may be unscreened, taking all applicants, or screened, taking only applicants which meet the individual requirements of the specific program. Educational options high schools offer 3 year sequential courses preparing students for jobs in career areas as well as for college. There are 6 of these schools, and career areas include communications, data processing, oceanography and health services. There are 4 Specialised High Schools in New York City. Three of them specialize in science, and the fourth in music and the arts. At the science high schools, an entrance examination must be taken. At the School for Music and Arts, instrumental music auditions, performance tests, or portfolios are required for selection. Alternative high schools, of which there are 10, feature small settings, remediation, career education and college preparation.

3.46 A high school diploma is given to all graduates of New York City public high schools. Requirements for the high school diploma are expressed in terms of numbers of credits in specified subject areas. These are: 8 credits of English; 7 of Academic Preparation, which consists of a choice of global history, American studies, economics or social studies; 4 of science; 4 of mathematics; 4 of Introduction to Humanities subjects, comprising the arts, music and foreign languages; 4 of Introduction to Shop, Business and Hands on Experience, comprising practical arts, business skills and career oriented instruction; 1 of Health and Physical Education; 6 in an area of concentration comprising extra credits in any subject area; and 2 of free electives. The total number of credits is 40.

3.47 There are a number of programs available to high school students in addition to the normal high school courses. One of these is the Cooperative Education Program, which provides job training for 11th and 12th grade high school students over 16 years of age. Students in this program alternate between attending school and working at a paid job every other week, or have part time daily work schedules. Academic credit is received for the work experience. Jobs are in the clerical, trade and technical, sales and health careers areas and are closely related to the subjects studied in school. The Cooperative Education Program operates special centres to help students upgrade and improve their employment skills. The Executive High School Internship Program enables students to serve as special assistants to executives in private and public agencies and organizations on a full time basis for one school term for full academic credit. Career fields in which interns may be placed include advertising, business, communications, hotel management, journalism and law. Talent Unlimited is a performing arts programs in dance, drama, stage arts, musical theatre, instrumental and vocal music. Students may audition for the program, and those accepted attend classes in their local zoned high school in the mornings and take Talent Unlimited Classes at the Julia Richman High School in the afternoon. There are also college-oriented program primarily targetted at disadvantaged students. The College Bound Program offers intensive special instruction to these students, and a number of colleges have agreed to admit its graduates and provide them with financial aid as needed. Twenty four high schools offer this program. The College Discovery and Development Program operates in 5 high schools and offers supplementary instruction in basic skills and intensive guidance services under the auspices of the City University. The Training in Occupations and Language for Limited English Proficiency Students, program (TOLLEPS) provides instruction in the English language and in specific occupations, including health careers, secretarial skills, travel and tourism, auto-mechanics, home maintenance, small business management and restaurant and food services.

Examinations and Assessment

3.48 While there is no formal external examination in all subject areas for entry to secondary school or for graduation from secondary school or tertiary entry, there has been an increased use of standardized tests in basic skills areas in recent years. Like most other states in the USA, the state of New York has prescribed minimum skills requirements for students at all levels, and all schools in the City District of New York comply with these requirements.

3.49 An Office of Testing was established by the New York City Board of Education in 1981 to oversee the creation of a comprehensive test plan for all grade levels. The intention was to formulate a series of reliable testing instruments tied to minimum skill requirements and to the Promotional Gates Policy. City-wide testing programs are held for all students from grade 2 to grade 9 in reading and mathematics. Promotion from grades 4 and 7 is contingent upon performance at grade level on these tests, as has been described. If in the judgement of a student's teacher and school principal, the City-wide reading test does not reflect the true ability of the student, they may consider results of the New York State Degrees of Reading Power Test as an additional measure.

3.50 The use of standardized tests for promotional policy has been criticized on several grounds since the inception of the Gates program. It has been claimed that a single grade-equivalent score for a single skill from the administration of a single test is a tenuous basis for compelling a student to repeat a year of school. Any such test score should be viewed statistically as a rough estimate of a student's true ability and the standard set in such a test is not a statistically valid basis for a pass-fail decision. It has also been questioned how closely the specific skills tested are related to the skills the students have actually been working on in the classroom. National standardized tests are extremely abstract in relation to particular curricula. Evaluations of the program have shown that students retained in Gates classes have made some gains in achievement but it has not been possible to determine whether or not these gains would have been made without such intervention, or what the effect has been on the achievement and motivation of average and above average pupils. One writer (107 has suggested that a more flexible promotional standard be adopted, including curriculum-based tests and teacher evaluation as well as the standardized test.

3.51 At the high school level, both City-wide and Regents Competency tests in basic skills are carried out. The Regents Competency test is a New York State test which evaluates a student's skills in reading, writing, and mathematics. For high school graduation, satisfactory passes in the prescribed credits of course work in each subject which have been described are required. The minimum passing grade in each subject is 65%. Diplomas may be granted "with merit" to students with a high school average of 80% or above or "with honours" to pupils who have high school averages of 85% or above in 10 or more credits of course work ending in Regents or other state-approved equivalent examinations. Most assessment is school based, and employs a variety of evaluation techniques.

3.52 For tertiary entry, it is necessary to have achieved a high school graduation diploma. Some colleges and universities have prerequisites of performance in specified subject areas for entry to particular courses. Many tertiary institutions also require prospective entrants to sit for the Scholastic Aptitude Test (SAT), a test widely used in the US to evaluate student ability to do college work.

CHAPTER FOUR - SUMMARY CONCLUSIONS AND SUGGESTIONS

SUMMARY

Presentation

4.01 In this Chapter, we propose to present a summary of the information relating to the countries visited using the themes of aims and philosophy, management and control, curriculum development, content, and examinations and assessment which we have used for the individual countries. From the material, we present as a second part of this chapter a statement of conclusions and finally use the material to outline suggestions for Victoria which we believe accord with the current position and future prospects in Victoria.

Aims and Philosophy

4.02 The philosophy underlying the systems of public education in each of the countries investigated is inextricably bound up with the history, culture and social structure of the country concerned, as well as with the policies of the government currently in power. It is possible to make some broad generalizations about these underlying philosophies, but care must be taken in doing so since it cannot be assumed that all groups and individuals within these societies necessarily accept the goals put forward in major policy documents or reflected in government action, and in many countries controversy is a major feature of the educational scene.

4.03 It is evident that the three Asian countries investigated, despite their divergent systems of government and stages of development, have philosophies underlying their education systems which are oriented more towards the collective than the individual, and the community and national benefits of education more than the personal ones. Japan is a relatively homogeneous society in which inculcation of cultural traditions and a common commitment to moral, ethical and social values are a strong element of the education system. In Thailand and China education is currently viewed as an important element in economic development as well as a means of building national conciousness and loyalty. Thailand's education system is viewed in policy documents as a means of overcoming poverty and enabling citizens to contribute to national growth and development, thereby constituting 'strength and power for the nation' (18). It is also intended to inculcate conciousness of being a Thai, a spirit of self-sacrifice, and the will to 'uphold, defend and protect the unity and freedom of the Thai nation'. (18) In China the aim is to establish an education system that meets the needs of national modernization as well as creating a 'socialist spiritual civilization' (27) Emphasis is placed on morale, discipline and conscientiousness, and provision of training in areas perceived as economically important. It can be concluded that in these countries, the emphasis in education is on producing the kinds of citizen the community and nation most need, and that individual goals and benefits in education are viewed within the context of the fulfillment of these broader social goals.

4.04 The goals and philosophies underlying the education systems in the European countries which were investigated are more diverse, and few overall generalizations can be made about them. In France there has been traditionally great value placed on rationality, intellect and cultural pursuits. Historically, the education system has been highly centralized and academic, its central feature being the production of an intellectual and managerial elite. Moves towards the democratization of education and the pursuit of equality are more recent features of French education. The 1975 Education Act stipulates that every child should be enabled to acquire a culture, prepare for professional life and exercise his responsibilities as a citizen. The academic tradition, and the prestige accorded it, however, remain strong.

4.05 Norway, unlike France, is not basically an urban culture, and the majority of its people live in small rural communities. It has a strong tradition of egalitarianism and participatory democracy. Stated goals of education over the past few decades have included raising the general level of education of the whole population, and fostering such qualities as tolerance, equality, cooperation and freedom of thought. In official policy, schools are intended to meet the needs of all young people, be run on democratic principles, and not operate as agencies for social selection. In practice these goals are difficult to achieve and some procedures, such as external examinations persist in certain areas, and are the subject of controversy. Similarly, Sweden has a strong commitment to high standards of social welfare and education has been seen as one means of raising the standards of social welfare in the Swedish community.

4.06 The UK has traditionally been a hierarchical society in which different amounts and types of educational provision were made for distinct social classes. The upper classes received a highly academic, classically oriented education intended to produce a cultivated mind rather than a preparation for any field of activity. Since the advent of secondary education for all, the philosophy underlying the provision of education has depended largely on the ideology of those in positions of power and influence, ranging from separate provision according to ability in the 1950's, to the idea of comprehensive education in the 1960s and 1970s, to more recent policies of fostering vocational preparation for the majority of students while retaining a strong academic emphasis for those bound for tertiary studies. Differencies in policy have depended on whether a Labour or Conservative government has been in power, and have always been subject to controversy and dissent.

4.07 The two North American countries have traditionally viewed education as a vehicle for the advancement and social mobility of the individual as well as an element in the creation of bonds between the disparate cultural and ethnic groups which have made up these relatively new societies. Both the USA and Canada have developed comprehensive systems of secondary education in keeping with these views, and have attempted to keep the options of students open for as long as possible. As a result they have high school retention rates. Stated policy aims in Canada include the goal that every child has the opportunity to develop as completely as possible in the direction of his or her talents and needs and gain the competencies needed for active participation in society and for a complete and responsible life. Both countries have a major concern with the implications for education of multiculturalism, rapid social and technological changes, and economic recession. In the USA, there has been expressed recently in a number of significant publications a view that secondary education has not fulfilled the expectations held for it and that the academic aspects of education have been neglected in efforts to provide for the diversity of interests, aptitudes and abilities present in the comprehensive school.

4.08 An examination of the differing social and educational philosophies underlying the provision of education in this diverse range of countries, reveals a number of trends. In the three Asian countries, the emphasis is on the collective rather than the individual goals of education, and individual benefits are seen as a subsidiary of broad social benefits. In the North American countries on the other hand, broad social and national benefits are viewed as the sum total of benefits to individuals, each of which pursues his or her own advancement and self fulfilment through education. In Norway and Sweden both personal and broad social benefits are considered to accrue from the provision of equal and democratic educational opportunities, and are considered to have equal value. In Britain and France different views of the purposes of education are applied to different social groups and the tradition of the schools as a social selection agency remains strong. These diverse philosophical orientations underlying the policies applied to the provision of schooling have a profound effect on the structure of schooling which is adopted and the content of the curriculum offered to students.

Management and Control of the Curriculum

4.09 As we examined the material for each country, it became clear that a major issue in relation to the curriculum is who makes the ultimate decisions as to what should be provided for students to learn. Questions of who is to control the curriculum necessarily involve a balance between a range of legitimate interests. There is a nation or state-wide interest in having the schools provide students with a range of skills and knowledge it is considered desirable for citizens of the particular country to have. There may be a broad consensus on the nature of these, or there may be areas of contention associated with them. Other legitimate interests include those of tertiary institutions and prospective employers, who need to know, and perhaps have some input into, the skills and knowledge ex-students from the school system are likely to have, and require some form of consistency between schools to facilitate their selection processes. The local community also has some interest in the curriculum offered in its schools, since there may be wide variations in the cultural, social and economic conditions of particular areas which should be reflected in schooling. Teachers and administrators who actually deliver educational services and are in a position to understand the characteristics and needs of their particular clientele have a strong interest in what is offered in the curriculum. Parents have a major stake in, and responsibility for, the upbringing of their children and a legitimate interest in ensuring that the curriculum offered is what they desire for their children. The students themselves, particularly at the secondary level, also have a legitimate interest in decisions as to what they should learn and how they should learn it. The nature of the structures and processes adopted for decisions relating to curriculum can be viewed in terms of the balance between these different, and sometimes conflicting, interests. Where the power is located has significant consequences for the content of the curriculum, the influences to which it is subjected, and the manner in which it responds to change.

4.10 The mode of control over the curriculum can be viewed as a continuum ranging from the highly centralized to the decentralized and local. In countries where the balance of power over curriculum decision-making is weighted towards central government agencies, it could be considered that the national interest is given precedence over the others. Centralized modes of control are evident in Japan, China, Thailand and France. There are cultural, historical and political reasons for this in all cases. For instance, Thailand has a commitment to fostering unity and loyalty to the regime in the face of internal and external threats, as well as developing education as part of a strategy for economic development. Similarly, in China education is viewed as a major feature of government policies for modernization, economic development and the production of human resources, as well as a disciplined and collectively-minded population. France has a long tradition of centralized bureaucracy, and while this has been relaxed to some extent over the past two decades, the balance remains towards centralized power over the curriculum.

4.11 In these countries the structure and content of the curriculum is conceived as a nationwide undertaking which is the responsibility of a central government department or agency and there is also centralized control over which texts are developed or authorized for use. Practising teachers, employers and tertiary institutions have some input into the process by inclusion of their representatives in deliberation processs at the central level. Individual practitioners at the local level have little influence. However, all of these countries do provide opportunities for local variations or modifications to the curriculum within the national framework to cater for local variations, particularly in vocational education. These variations, however, must be approved, authorized, or developed in conjunction with the central authority. Parents have very little influence over the curriculum in these countries.

4.12 The balance between interests which has been adopted in Norway, Sweden and Canada is similarly influenced by cultural, geographical and historical factors. Norway has a history of egalitarianism and participatory democracy in social policy but has a small population spread over difficult and often isolated terrain which makes the delivery of services of equal quality difficult. Canada also has a large area and often difficult terrain, and a history of philosophical commitment to individual fulfillment through education. In Sweden, the National

Board of Education has the major responsibility for ensuring uniformity of standards throughout the country. These three countries present a more mixed mode of responsibility for curriculum, with the central or, in Canada, provincial government agency determining overall guidelines with respect to curriculum content, but local school boards having some freedom in the way they translate these into actual practice in their area, or tailor them in schools to the needs of students. In this way, nation or province-wide consistency is achieved in respect to broad goals and the subject areas to be covered, and this is balanced by the fact that decisions as to particular content in curriculum can be made closer to the operating of the schools. In Sweden the Joint Councils for secondary schools, which include principals, teachers and students have some influence over curriculum decisions, the extent depending on local factors and the personalities involved. In Norway there are mechanisms to ensure that local interests, teachers, parents, and at the higher levels, students, may participate in decisions as to the structure and balance of content in the curriculum, both at the local school board and individual school level. Similarly, in Canada these interests have a major input at these levels through participation in elected local school boards and individual school decision making bodies. Teachers, tertiary institutions, employers and parents also have some input in decision-making bodies at the central level, where guidelines are prepared.

4.13 The UK, and particularly the USA, have a history of philosophical commitment to individualism, which is reflected to some extent in their approaches to the locus of power over the curriculum. These countries have the most decentralized patterns of control, with local school districts historically having power over all aspects of schooling including the curriculum offered, and in practice individual schools and teachers largely determining what was taught. This traditional pattern is being modified in both countries, with the locus of power shifting towards the state level in the USA and the national level in the UK. There are a number of factors underlying this shift, but most relate to a disillusionment with schooling and its outcomes evident in the late 1970's and early 1980's. In the USA there has been controversy over community control of schools, particularly in relation to the exclusion of some topics or areas of study from the curriculum and inclusion of others as a result of local politics. There has also been a national concern with a perceived decline in educational standards. In Britain there has been political conflict over the goals of education between the conservative government, the teachers unions, some local authorities and the Schools Council. A similar concern with educational standards has been evident, and some antipathy on the part of the public and the government towards the power over curriculum exercised by teachers. In the USA this has resulted in an increased incidence of state-wide requirements with regard to curriculum goals and content, and levels of achievement in basic skill areas to be attained by students. In Britain it has resulted in attempts by the DES to develop broad guidelines for the curriculum to be followed in schools, and by the replacement of the Schools Council by two new bodies, an examinations council and a more narrowly conceived curriculum council. It is significant that practising teachers are not represented on the curriculum council.

4.14 It is interesting to note that the countries with traditions of centralism have been moving towards allowing for local variation in the curriculum, particularly in respect to vocationally-oriented education and the languages and culture of minority groups, while countries with decentralized traditions are heading towards state-mandated requirements in skills areas and an increasing share of responsibility by central agencies. In no country did ultimate power over deciding the curriculum reside with students or the parents of students. Parent participation in curriculum decision-making was negligible in Japan, China, Thailand and France. In the other countries, mechanisms did exist for parents to have some input at the local level, and in the case of Norway, senior students as well. The participation of parents in decision-making therefore appears to be closely associated with the degree of decentralization of power over the curriculum and the extent to which national goals are weighted more heavily than personal or local goals.

Curriculum Development

4.15 This survey identifies two aspects of curriculum development. These are:

- Development of course oulines covering a range of particular subject matter to be offered in schools.
- Development of this subject matter into actual texts, teaching materials and learning strategies.

4.16 Depending on the mode of management and control of the curriculum, these aspects may be undertaken by the same agency or as separate exercises by different agencies.

The approaches adopted in the countries investigated were:

- Development of outlines of curriculum content and curriculum materials by the same central agency (China, paras. 1.34-1.35, Thailand paras. 1.52-1.58).
- Development of guidelines for curriculum content by a central agency, but an 'open market' for the development of curriculum materials by commercial operations and/or professional groups, subject to central approval of materials before they may be used in schools (Norway (paras. 2.17-2.19, Canada paras. 3.10-3.14 Sweden para 2.46, Japan paras. 1.09-1.11).
- Local school or school board development of both guidelines for curriculum content and curriculum materials, but with widespread use of materials developed by large scale projects undertaken by professional groups such as the late Schools Council in England and the Scottish Curriculum Development Service. (UK, paras. 2.90-2.92, Scotland, para. 2.121).

4.17 In China and Thailand construction of curricula and development of materials are undertaken by central government agencies and must be used throughout the country. Teachers, academics and experts in the various areas of study are included on the committees established to develop the materials. Local variations to these curriculum materials are also developed. In Thailand these are developed by the same process, as the national materials and published by the same central agency. In China, local materials are largely in vocational areas related to the economy of the region and are developed by provincial editing groups. Both countries view curriculum development as an ongoing process and revise curriculum materials at regular intervals.

4.18 Advantages claimed for this "centralist" form of curriculum development are that the best available expertise can be harnessed for the purpose and high quality materials can be made available to schools in all areas irrespective of regional circumstances. It is also argued that teachers have a major input into the process through their inclusion on development committees, in trialling the materials, and their participation in evaluation procedures, but that most practising teachers are spared the arduous task of curriculum development, for which they have neither the time nor the resources. Another claim is that development of curriculum materials by a central government agency also ensures that there is consistency in the standard of materials used and that national goals with regard to the aims of schooling will be met. On the other hand, it is argued that the requirement for all teachers to use these centrally developed materials severely limits their area of professional discretion and judgment and may stifle initiative and creativity at a local level. It is argued also that this process may only allow one point of view to be expressed in the material presented to students, to the detriment of the growth of their independence of thought, and that this is in essence anti-educational. In extreme cases, such materials may assume the characteristics of propaganda. It is interesting to note that this "centralist" form of curriculum development is adopted in countries where the balance of interests in education is weighed heavily towards national government goals rather than those of parents, teachers, or local communities.

4.19 In Norway, Sweden, Japan and Ontario, Canada, a "mixed" form of curriculum development is practised. A central government agency establishes guidelines for curriculum content, but texts and materials may be developed by private publishers, professional groups or local school communities. In each of these countries teaching materials must be approved by the Ministry of Education before they are authorized for use in schools. Once materials are authorized for use in Canada, Norway and Sweden, they are placed on lists from which schools and local school boards may choose a range of materials to suit their purposes, but the use of any particular text is not mandatory. In Japan, municipal school boards select one authorized text for each subject and year level which must be used by the schools under their jurisdiction.

4.20 The main advantage claimed for a "mixed" form of curriculum development is that since a range of publishers, professional groups and local school communities may be involved in the curriculum development process, there is a greater reservoir of expertise, talent and creativity from which curriculum materials may emerge, which potentially can result in a wider choice of material, more innovative approaches, and material suited to a wider range of purposes and presenting a variety of points of view. In this "mixed" form local school boards and schools may choose or construct materials suited to their own circumstances within the broad guidelines as to curriculum content issued by the Ministry.

4.21 The contentious issue in the "mixed" form of curriculum development is the Ministry's approval role. Generally the screening of materials for approval and authorization by the Ministry is defended on the grounds that it ensures that materials authorised for use in schools are up to date and factually correct and that they comply with government policy on the use of national languages, and do not contain material which is sexist, racist or discriminatory against particular groups.

4.22 This aspect of the "mixed" model elicits a response in the community which varies according to the methods which are used. In Norway, Sweden and Canada this process of authorization arouses little controversy since it is made on the advice of councils on which all major interests are represented, the process is open to public scrutiny, and it is undertaken on the basis of established and publicly available criteria. In Japan, however, considerable controversy has arisen over the screening process. This is largely due to the fact that the process is not open to public scrutiny and there are no publicly established criteria for the acceptance or rejection of texts or demands for revision. It has been claimed that rejection of manuscripts or suggestions for revision may be made for political rather than educational reasons, particularly in social studies texts, since the screening process is based on state authority rather than educational expertise. Since textbook producers concentrate on formulas they know will be successful in securing approval, the process may stifle innovativeness and growth. These problems are exacerbated by the central position of a single textbook in each subject for each level in the Japanese education system, which makes approval of texts and their selection by municipal school boards crucial for the profitability of textbook publishing companies. The advantages that apply to this process of materials development which are evident in the case of Canada, Norway and Sweden do not therefore apply in the case of Japan, where the approval process dominates and distorts the process of materials construction.

4.23 The UK, with the most decentralized patterns of management and control of curriculum, also has had the fewest restrictions on curriculum development, without any vetting or approval procedures by a central agency or guidelines issued as to curriculum content. In practice however, a role of predominant importance has been assumed by bodies such as the Schools Council in England (before its demise) and the Curriculum Development Service in Scotland, financially supported by government but consisting predominantly of professional educators. It could be argued that arrangements of this nature enable teachers to have the option of using high quality materials developed for widespread use as well as support and resources to draw upon in constructing their own materials, and that the sharing of information and dissemination of successful approaches may be facilitated through these agencies. However, there is a danger that where curriculum projects are supported that are politically sensitive or abhorrent to the incumbent government it may move to restructure or abolish the council and establish its own guidelines as to curriculum content. This is what has occurred in England with the Schools Council.

4.24 The characteristic processes by which curriculum materials are developed have changed over the last decade. During the 1960's and early 1970's the emphasis was on large scale curriculum development projects, such as the Nuffield science projects in Britain and Project Physics, the Chemical Education Materials Study and the Biological Sciences Curriculum Study in the USA. There has been a trend away from large scale projects of this nature for several reasons. Evaluations of the use of new materials have demonstrated that they are most successfully implemented where the practitioners involved in teaching them have had some input into their construction, a commitment to the approaches they take and a thorough understanding of the materials and the principles underlying the way they are constructed and presented. Well-constructed materials were not sufficient in themselves. The crucial element was how they were used by teachers.

4.25 These findings have led to a greater emphasis on concurrent evaluation of materials during the development and trialling phases and an emphasis on teacher participation and inservice activities. They have led also to a shift in emphasis towards providing support and resources for local and small scale materials development projects rather than large central ones. This is evident in the USA, Canada, the UK and Norway. China and Thailand, on the other hand, have maintained the large scale central project approach, but have attempted to involve practising teachers more in the development, trialling and evaluation of materials. Japan has also laid great emphasis on inservice education and 'explanation seminars'.

4.26 A problem with small scale and local approaches to curriculum development is that resources and expertise may vary widely, resulting in disparity of quality and consequent inequality in the education offered students. This is recognized in all countries, and mechanisms f providing support, resources, advice and the sharing information are adopted. In Canada, Norway and Sweden t issuing of guidelines and the approvals procedure ensures some consistency in content, although approaches may vary widely. Canada also has a computerized system for disseminating information on successful approaches between school communities. In Scotland and England the Curriculum Development Services and the old School Council also provided local support services and dissemination. The new Curriculum Council in England has indicated that it will act as a catalyst for curriculum development and the sharing and dissemination of curriculum information. It may also gradually adopt the role of issuing guidelines for curriculum such as those which operate in some of the other countries.

Content

4.27 One of the major issues in relation to curriculum is what knowledge and skills are considered essential for students to acquire through the schooling process. Schooling can be considered as a process of general cultural formation as well as a means whereby skills are acquired for living and working in a particular society.

4.28 There are several ways of approaching the question of what students should learn:-

- a diversity of learning for individual needs and circumstances.
- a core curriculum, consisting of a basic minimum of essential skills and learning.
- a common curriculum, consisting of a broader range of knowledge and skills providing a cultural and skill foundation for all types of students.

Each country uses a variation of these approaches and considers certain areas of learning essential depending on its own traditions, circumstances and philosophy.

4.29 Within each country there is more consensus about the content of primary education than secondary, probably reflecting the fact that universal primary education has a longer history and therefore a more settled rationale in most countries. Differences in approaches to the content of the curriculum between countries arise most strongly at the secondary, and in particular the post-compulsory phase of schooling. Controversy within countries also arises most strongly at these levels.

4.30 Common trends can be discerned in learning considered essential for all students. Tests of curriculum content in all countries show that the following areas of study are considered essential at the compulsory or lower secondary level:-

- the national language
- science
- maths
- health and physical education
- aesthetic education (the arts, crafts, music)
- civic and social education

4.31 All countries in varying degrees enable local additions and modifications to be made to the curriculum to take account of regional cultural or economic variations and individual choice. As pointed out, (paras. 4.11,4.14, 4.17, 4.25) the extent of these variations depends upon national policy and philosophy, and the structures adopted for the management and control of the curriculum.

4.32 At the compulsory levels, most countries follow a 'common curriculum' approach, defining areas of common cultural foundation in which all students should participate, while to varying degrees allowing for regional variation. This includes in some cases outright national chauvinism, as in Thailand and China; and in others social and moral conformity, as in China, Thailand and Japan. In these countries there is either a situation of national insecurity or a 'corporate state' ideal. Even where these elements are not present, most countries do appear to have a form of cultural consensus on the broad areas of human knowledge about which all citizens can be expected to have some knowledge. France, Norway, Sweden and Canada all attempt to acquaint students with their cultural heritage in terms of language, history, civics and intellectual traditions. In all countries these are mostly expressed in terms of 'subjects', although in some cases, particularly at the primary level, they are expressed in terms of broad categories of learning, and in some cases in terms of topics which may be included in any subject configuration.

4.33 The UK and Scotland have traditionally not had any such 'common curriculum' idea, the only required area of study being religious education. There has in practice turned out to be a great deal of conformity in the areas of study pursued, largely as a result of the requirements of examinations. However, the dominance of examinations has led to an emphasis on what certain types of student should be expected to achieve, not what all students should have the opportunity to learn while at school. There are moves towards a 'common curriculum' approach in both England and Scotland, but in the case of England it has been bedevilled by politics and conflicting purposes.

4.34 The USA, on the other hand, is working towards a 'core' concept of a set of minimum basic skills all students should be expected to have mastered at different ages, and which have little to do with the concept of a general cultural foundation for all. The danger in this approach is that it may reduce school learning for some students to the inculcation of a few basic skills.

4.35 At the post-compulsory level the idea of a common cultural foundation as the basis for curriculum is not pursued in most countries. The 'diversity' approach is predominant and it is at this level that there is the greatest fragmentation of curriculum. In some countries there is a demarcation between the 'academic' and the 'vocational', with little opportunity offered for students to undertake courses combining the two. This is notable particularly in France, the UK, and China. Japan, Norway, Sweden, Canada, the USA and Thailand offer opportunities for students to combine both types of course, but in most of these countries the balance between the two is a contentious issue, and in practice many students take one type of course or the other. At the post-compulsory level the emphasis in all countries appears to lie with pragmatic outcomes such as entry to work or tertiary education, rather than with the 'cultural foundation' end of the curriculum spectrum, although attempts are made to include an element of broad general education in all types of course. This is not unexpected in view of the fact that education at this stage is a voluntary activity, closely related to opportunities for work or further study, and until recently has been pursued by a minority of students.

4.36 The issue of 'general' versus 'vocational' education has assumed major importance in all of the countries visited. If education is viewed as a process of general cultural foundation and a means whereby skills are acquired for living and working in a particular society (para. 4.27), then controversy over this issue may be seen as the question of the appropriate balance between these two aspects of curriculum, and of what skills are needed, and by which students. Preoccupation with this issue has arisen as a result of economic recession, changes in the structure of industry and commerce, accelerated technological change and broader social and economic changes which have rendered the practical outcomes of schooling, and the interface between schooling and the world of work, more problematical in almost all countries in recent years.

4.37 Thailand and China are the only countries visited which have a significant element of vocational education in their primary school programs. This is related to the fact that for many students in these countries, especially in rural areas, this may be the only level of education they attain, and programs are designed as complete and terminal for these students. In both countries the stated goals include such items as learning to love labour, acquiring the knowledge and skills necessary for future livelihood, and developing positive attitudes to all occupations. Work oriented experiences and physical labour occupy an increasing percentage of class time as the student progresses through the school, and is closely related to the major forms of economic activity of the area.

4.38 In most of the countries visited, however, the question of the directly vocational component and orientation of the curriculum arises most pertinently at the secondary level, and particularly the post-compulsory phase. It involves a number of related issues, including equality of opportunity, the nature and degree of integraton of different aspects of the curriculum, and the relationship of secondary schooling to both tertiary education and work.

4.39 All of the countries have attempted to increase the directly vocational element in secondary schooling, at least for some students, but the manner in which this has occurred varies. In China, France, and the UK, the 'vocational' and the 'academic' are kept as separate and distinct categories, pursued by different groups of students. China and France have differentiated upper secondary school systems to cater for each of these categories of student, and in the case of China these schools are often occupationally specific and attached to particular factories, mines or other enterprises. In Britain, students either pursue 1 to 3 specialized academic subjects leading to A levels and tertiary entry, take broadly based vocational courses leading to the new Certificate of Pre Vocational Education, or leave school and take up a combination of on the job work experience and vocational training under the auspices of the Manpower Services Commission. Vocational courses are also being encouraged in the compulsory phase of secondary schooling under the MSC's Technical and Vocational Education Initiative.

4.40 The USA, Canada, Norway, Sweden and Japan have a less rigid separation between the academic and the vocational. In Japan both academic and vocational courses are offered in the upper secondary school, with the vocational courses being classified into 6 major fields of endeavour. A core of general subjects is taken by all pupils, however, and there are possibilities for tertiary entry from all types of course. In the USA and Canada the comprehensive high school caters for all students without rigid separation of the academic and the vocational. Business and technological studies are part of the core program in Canada, as is introduction to 'shop', business, and hands-on experience in New York, and both offer a range of options in both general and vocational areas, allowing for areas of concentration in fields of interest, work experience components, and in Canada, links with apprenticeships. New York also has some specialized schools in particular career areas. Norway and Sweden have made considerable efforts to combine and give equal status to practical and theoretical education in their comprehensive upper secondary schools. The Norwegian upper secondary school has a complicated system of lines and branches in different vocational areas, but all students undertake a common core of general studies, transfer between branches is made as easy as possible, and all branches contain the possibility of entering tertiary education as well as the workforce, apprenticeships or further training. In Sweden there is a nine year comprehensive school followed by an Integrated Upper Secondary School for 16 to 19 year olds. The system of sectors and 2,3 and 4 year lines of study attempts to provide preparation for advanced study and vocational programs combining both the theoretical and practical aspects. By completing any 2 year line of study, a student fulfils the general admission requirements for tertiary education.

4.41 Thus it can be seen that approaches vary between rigid separation of the academic from the vocational and varying degrees of integration of both. In countries which follow the comprehensive idea, attempts are made to keep the options of students open, provide all students with the opportunity for grounding in both types of study, and ensure that the possibility is open to continue on to tertiary education as well as enter the workforce. These are also the countries where the retention rate in post-compulsory education is highest. In other countries, such as the UK and France, the trend is towards creating different courses with different terminal certificates for those seeking tertiary entry and those undertaking vocational preparation for the workforce. In these countries upper secondary schooling has been traditionally narrowly academic and retention rates are low. The new vocational courses are being developed partly as an attempt to encourage educational participation by those who have traditionally left early. In China in particular, secondary education is also seen as an important element in manpower training and a cost efficient way of providing a workforce in specific occupational areas. The growth of secondary schools providing a general education is being discouraged.

4.42 These differences of approach reflect the philosophies of education, social context and economic circumstances currently pertaining in the countries concerned. Major questions addressed in all of them are what actually constitutes vocational education, and whether it should be broad and generic or occupationally specific. With changes in the structure of work and the internal economies of most countries, it is difficult to predict which skills will be of most value, and whether the acquisition of skills and knowledge which do not appear to be prima facie vocational may not in fact enable individuals to seize or create new vocational possibilities. While China has opted for occupationally specific training, most other countries are concerned to ensure that it is broad and generic and combined with some measure of general education.

4.43 Another major issue is related to the question of equality. It could be argued that vocational education is whatever education leads to a position in the workforce, irrespective of its content, and this depends on the type of certification it provides and the standing of that certification in the community. Where different forms of certification exist, as in Britain, it may be that the certificate holding the greatest status will be most occupationally useful irrespective of whether it reflects any specific vocational grounding. Rigid separation of the academic and the vocational may be a disguised form of streaming leading to disparities of opportunity and closing off options rather than increasing them, particularly where the 'practical and the 'theoretical' are given different status in the eyes of the community. Norway and Sweden are attempting to address this problem at a conscious policy level, with a curriculum divided along broadly vocational lines, but including both the theoretical and the practical in all areas of study, so that the distinction between 'general' and 'vocational' becomes irrelevant, and all students in effect pursue both.

Examinations, Assessment and Certification

4.44 The assessment of student performance can be undertaken for a variety of purposes, and the purpose for which it is made is a major influence on the type of assessment used. It may be for the purpose of diagnosing areas in which pupils are having difficulty, evaluating the extent to which the goals of a teaching program have been met, determining the average level at which pupils may be expected to perform, or distinguishing between pupils for selection or certification purposes.

4.45 Depending on the purpose for which student assessment is made, different approaches to it are taken. In the various countries visited, these include:

- assessment by teachers in individual classes or schools on the basis of material taught.
- as above, but within the framework of state or national requirements as to the material to be tested and the standards of achievement expected for a passing grade in terms of mastery of content.
- as above, but with a further element of between-school moderation to ensure comparability of standards.
- assessment on the basis of external standard examinations in specified subject areas, centrally administered and marked, and with established statistical procedures for the distribution of marks.
- mixtures of internal assessment and external examinations, with internal school assessment either forming a component of the mark in each subject, or being the sole form of assessment in particular subjects.
- external standardized tests of skills which are not based on any particular body of material presumed to have been taught, and used either in conjunction with internal assessment of subject material covered, or used in isolation from it.

4.46 At the primary level of schooling, most of the countries visited use pupil assessment primarily for the purposes of diagnosis of difficulties and to establish the extent to which the goals of teaching are being met. There are no specified requirements with regard to the assessment of students in Canada, the UK, Japan, France or China. In

Norway the only requirement is that parents or guardians must be informed of their child's progress at school by personal meetings or written reports at least twice a year, while on Sweden it is government policy to remove the concepts of pass and fail from the system and student assessment does not appear until year 8. Thailand specifies that primary schools should assess student performance for diagnostic and program evaluation purposes and to inform parents as to how their children are progressing.

4.47 No country visited except Thailand and the City of New York used formal assessment of student performance for the purpose of promotion from one grade to the next, or for qualification to enter secondary school. In all of the other countries transfer to secondary school was automatic on completion of primary schooling. Thailand used internal school testing of pupil performance as a criterion for promotion from grades 2, 4 and 6, the final year of primary schooling. In New York external district wide standardized tests of the basic skills of reading and maths were used as criteria for promotion from grades 4 and 7. Students performing below grade level on these tests were retained in special classes until they could pass the tests. In effect, this means that transfer from primary to secondary school is no longer automatic in New York, but is contingent upon performance at a defined level of average performance in these basic skills.

4.48 It is at the secondary level that the assessment of student performance assumes a role of greater importance and attendant controversy in all of the countries visited. This reflects the wider range of purposes for which assessment is used at this level and the major consequences it can have for individual students. Two major purposes for which students are assessed at the secondary level are for selection for entry to the post-compulsory phase of schooling, or after the post-compulsory phase, for tertiary entry; and for the acquisition of a certificate of school achievement which may be used to gain employment or entry to training or apprenticeship programs.

4.49 Procedures for passing from the compulsory to the post-compulsory phase of schooling vary. Only Canada and the USA conceive of the entire period of secondary schooling as a unified whole without any formal certification at the end of the compulsory period or requirements for entry to the post- compulsory phase. In most other countries there is a physical or conceptual distinction made between the two phases and some form of assessment made and/or certification issued at the end of the compulsory period.

In Canada there is provision for certification of students who do not complete the full secondary course. A provincial certificate is available on request for students who leave, provided they have obtained a specified member of credits in particular subjects. An Ontario Student Transcript detailing the student's achievements while at school is also available to all students, at the point at which they leave.

4.50 In all of the other countries there is some form of assessment of students at the end of the compulsory phase, either for the purposes of entry to upper secondary schooling or to provide certification in the expectation that some students will leave at this stage. Procedures are as follows:-

Japan - internal assessment, and scholastic ability tests administered by prefectural boards of education. 95% of students continue on.

Thailand - internal assessment resulting in both a leaving certificate for those not continuing, and selection for upper secondary schools for those who wish to continue with education.

China - internal assessment and selection on the basis of academic ability and the manpower needs of the region.

France - internal assessment, resulting in allocation to either academic or vocational upper secondary schools.

Norway - an external examination in Norwegian, English and maths, internal school assessment in other subjects, resulting in a school certificate. Entry to upper secondary schools is in principle open to all, but in courses or areas where there are insufficient places, results from the Basic school are taken into account.

Sweden - internal assessment and open entry to upper secondary school, with school results used as a basis for selection only in courses where there are insufficient places.

UK - external examinations resulting in a certificate (until recently two certificates held in different esteem). This may be used as evidence of academic achievement for a variety of purposes and is necessary if academic studies leading to tertiary entry are to be pursued in the 6th form.

4.51 It can be seen from the above summary that assessment and consequent certification at the end of the compulsory phase of secondary schooling serve two major purposes:-

- selection for entry to upper secondary schooling or for allocation to a particular type of upper secondary school.
- certification to provide evidence of educational achievement.

Most countries carry out assessment at this stage for a mixture of these purposes. In Japan it is a formality in that almost all students are expected to continue their education. In Thailand, on the other hand, it is expected to provide a terminal record of attainment for a great many students, although the policy is to encourage retention to the upper levels. The primary purpose in France is to provide a basis for allocating students to either vocational or academic upper secondary schools. In Norway, where all students completing the Basic school in principle have the right to an upper secondary education, controversy surrounds the continued existence of external examinations in some subjects. The UK remains the country most wedded to the idea of external examinations as a basis for certification at the end of compulsory schooling. As school retention to the post-compulsory years increases in all countries the element of selection as a component of the rationale for assessment and certification decreases.

4.52 The dual purposes of providing a record of school achievement and a basis for selection for further education become more uneasy in their relationship at the end of the post-compulsory phase of secondary schooling. Different approaches are taken to these dual purposes as follows:

- one set of assessment procedures and certification serves both purposes and is open to all students. (Norway, Sweden)
- one set of assessment procedures and certification is open to all students, but is not linked with tertiary entry. Tertiary institutions are responsible for their own selection procedures. (Canada, USA.)
- two sets of assessment procedures and certification are available, one for tertiary entry, and one for students not intending to continue to tertiary education.

(Thailand, UK, China, France.) In the case of China and France, the certification for those not continuing in education provides evidence of competence in specific vocational areas whereas in the UK and Thailand it is of a more broadly based prevocational nature.

two sets of assessment procedures are employed, one providing a general qualification for tertiary entry, and the other, conducted by the universities themselves, providing for entry to particular institutions or courses. (Japan)

4.53 The examining and certification procedures at the end of post-compulsory schooling may also be categorized according to whether they rely on external standard examinations or internal assessment in individual schools. For the purposes of high school graduation and certification of achievement, internal school assessment is the most common form used. This is the case in Canada and the USA; and in Thailand and China for those not seeking tertiary entry. The UK's new Certificate of Prevocational Education will also have a major component of internal assessment. External, centrally administered examinations, on the other hand, are most commonly used for tertiary entry purposes. This is the case in the UK, China, Thailand, France, and Japan. In the USA, while there is not an external examination based on particular curriculum content, a standard scholastic aptitude test is used to help tertiary institutions in their selection procedures.

4.54 A major issue with regard to assessment at the end of post-compulsory schooling has been the influence the tertiary selection aspect may have on the curriculum choices of students in the school. The requirements for passing an external examination for tertiary entry may come to dominate the work of the upper secondary school to such an extent that the broad educational needs of all students are neglected, and those not seeking tertiary entry may be relegated to an inappropriate or inferior education, or be discouraged from attending. Each country has sought to solve this dilemma in its own way, Canada and the USA by attempting to provide a comprehensive education for all students which is divorced from the tertiary entry process; Norway and Sweden by attempting to provide both theoretical and practical aspects in all lines of study so that all pupils may have the choice of either seeking tertiary entry or entering a vocation; France, Thailand, China, and the UK by providing separate assessment procedures and certification for those seeking teritary entry and those who are not, and providing an appropriate curriculum for each type of student. Japan has attempted to reduce the problem of 'cramming' for university entry by the provision of a two stage examination process, but this has not had much effect.

4.55 There are problems associated with all of these approaches. The rigid separation between vocational and tertiary entry certification in Thailand, China, France and the UK may mean that the options of some students are closed off when the initial choice is made since there are no pathways between them. It may also be to the detriment of the broad general education of both types of student. In Thailand the desire to seek tertiary entry leads many students to concentrate on the academic subjects which are examined for this purpose, whether they are appropriate or not, and the imbalance in the curriculum is not overcome. In the USA there has recently been disquiet about the dilution of standards and loss of purpose in secondary schooling and an increased use of standardized skills and scholastic aptitude tests which may have the result of narrowing the curriculum for most students even further.

4.56 Procedures for assessment and certification are inextricably bound up with broader questions of the curriculum and the purposes of education, and the extent to which they enhance or reinforce these purposes or distort and hinder them. Questions which must be borne in mind when devising these procedures include the effect the different purposes for which certification is used may have on the curriculum offered and the way it is assessed, and whether there is an imbalance in the prestige afforded these purposes which for many students may distort the learning process. It is also necessary to ask whether the attempts to find appropriate measures for constructing curricula, assessment and certification procedures for different types of student may not result in defacto streaming and disparity of esteem.

4.57 Of the countries investigated, Norway, Sweden, Canada and the USA have attempted to develop a concept of secondary schooling which is inclusive of all students and provides for assessment which includes the theoretical and the practical, the academic and the vocational, within a single framework. While there are still problems associated with the approaches taken in each of these countries, most notably in the schooling/tertiary education interface, the philosophy behind developments in these countries appears to be most consistent with the idea of a universal, and universally rewarding, upper secondary schooling which is the basis of current policy directions in Australia.

CONCLUSIONS

Aims and Philosophy

4.58 Major conclusions reached in relation to aims and philosophy underlying curriculum are as follows:-

(i) The philosophy underlying the systems of public education in each of the countries investigated is inextricably bound up with the history, culture and social structure of the country concerned.

(ii) It cannot be assumed that all groups and individuals within a society necessarily accept the goals put forward in major policy documents or reflected in government action. Controversy is endemic.

(iii) Despite their divergent systems of government and stages of development, the Asian countries, Japan, China and Thailand, have philosophies underlying their education systems which are oriented towards the collective more than the individual, the national and community more than the personal.

(iv) European countries are more diverse in aims and philosophy. France places great value on rationality, intellect, cultural pursuits and the production of an intellectual and managerial elite. Norway emphasizes tolerance, equality, cooperation and freedom of thought and Sweden has a strong commitment to high standards of social welfare. The UK has reflected the ideology of the party in power ranging from separate provision based on ability, to comprehensive provision and on to strong vocational preparation for the majority.

(v) Canada and the USA have viewed education as a vehicle for advancement, individual social mobility and as a powerful influence in creating bonds between disparate groups. As a consequence they have developed comprehensive systems of secondary education.

(vi) Retention rates are highest where the system of secondary education is comprehensive.

Management and Control

4.59 A number of conclusions can be reached in regard to the management and control of curriculum. They include the following:-

(i) Legitimate interest groups in management and control can be identified as national and/or state governments, tertiary institutions, employers, local communities, teachers and educational administrators, parents and students.

(ii) The mode of control over the curriculum can be viewed as a continuum ranging from the highly centralized to the decentralized and local. At one end of the continuum are Japan, China, Thailand and France, in the middle are Norway, Sweden and Canada, with a mixed mode of central and local responsibility, and at the other end are the more decentralized modes of the UK and USA.

(iii) The control situation is volatile. The traditional patterns in the USA and UK are being modified with the locus of power shifting towards the state level in the USA and the national level in the UK; and countries with traditions of centralism are moving to allow local variation in curriculum, particularly in respect to vocationally oriented education and the languages and cultures of minority groups.

(iv) In no country did ultimate power over deciding the curriculum reside with students or parents. In UK, USA and Canada mechanisms exist for parents to have input at the local level and in the case of Norway, students as well. Parent participation in curriculum decision making was negligible in Japan, China, Thailand, France and Sweden.

(v) The participation of parents in decision-making is associated with the degree of decentralisation of power over the curriculum and the extent to which national or state goals are weighted more heavily than personal or local goals.

Curriculum Development

4.60 The conclusions we have reached as far as curriculum development is concerned are as follows:-

(i) In China and Thailand development of outlines of curriculum content and associated materials are undertaken by the central agency. (the centralist form)

(ii) In Norway, Sweden, Canada and Japan guidelines are developed by the central agency but an 'open' market exists for the development of curriculum materials by commercial operators or professional groups subject to central approval before they are used in schools. (The 'mixed' form).

(iii) Local school or school board development of both guidelines and materials plus the widespread use of materials developed as large scale projects by professional groups is a feature of the UK and USA.

(iv) Advantages claimed for the "centralist" form are harnessing of best available expertise, even spread of quality materials, inclusion of teachers in development and freeing of practising teachers from the arduous task of curriculum development. Disadvantages include limitation of teachers' professional judgment, stifling of initiative and creativity at the local level, and restricted presentation of points of view to the detriment of growth of independent thought.

(v) For the "mixed" form it is claimed that involvement of a wide range of publishers, professional groups, teachers and local talent results in wider choice of material, innovation, creative ideas and a greater variety of points of view. The contentions issue is the role of the central agency in ensuring that materials are up-to-date, factually correct and comply with basic government policy. Where the process of approval is open as in Norway, Sweden and Canada there is little controversy. Where it is closed, as in Japan, difficulties and confusion arise.

(vi) The United Kingdom with the most decentralized patterns of management and control of curriculum also has had until the 1980's the fewest restrictions on the process of curriculum development without vetting or approval procedures by a central agency.

(vii) There has been a trend away from the large scale project type curriculum development procedure of the 1960s and 1970s since evaluations have demonstrated that without teacher involvement and commitment they have been less than successful. Well constructed materials are not sufficient in themselves.

(viii) Recent projects have had a greater emphasis on involvement of teachers in concurrent evaluation of materials during the development and trialling phases and an emphasis on extensive teacher inservice activities during the introduction phase.

(ix) Mechanisms for providing support, resources, advice and information sharing to those involved in small scale and local curriculum development activities are extending in Canada, Norway, Sweden, England and Scotland.

Content

4.61 Content and how it should be organized and structured is a major area of concern in curriculum. Our conclusions in respect to organization and structure are as follows:-

(i) Within each country there is more consensus about the content of primary education than secondary.

(ii) At the compulsory or lower secondary level subjects considered essential include the national language, science, maths, health and physical education, aesthetic education and civic and social education.

(iii) At the compulsory level, most countries including Japan, China, Thailand, France, Norway, Sweeden, and Canada follow a "common curriculum" approach defining areas of common cultural foundation in which all students should participate. The USA is working towards a "core" concept of a set of minimum basic skills all students should master at different ages.

(iv) The issue of "general" versus "vocational" education has assumed major importance in all countries visited.

(v) Thailand and China are the only countries visited which have a significant element of vocational education in their primary school programs.

(vi) At the post-compulsory level there is the greatest fragmentation of curriculum. In France, the UK and China there is a strong demarcation between the "academic" and the "vocational". Japan, Canada, the USA and Thailand offer opportunities for students to combine both types of courses as do Norway and Sweden but in the former countries the balance which should exist between the two is a contentious issue, and only in the latter two countries is there an attempt to combine elements of both within single courses.

(vii) Major questions addressed in all countries regarding vocational education is what actually constitutes such education and whether it should be broad and generic or occupationally specific. China has opted for the latter but most other countries are concerned to ensure that it is broad and generic and combined with some measure of general education.

(viii) Equality between academic and vocational education is a major issue in most countries. Where different forms of certification exist as in the UK, the status of a particular certificate overwhelms its content in respect to its usefulness in obtaining employment. This status is usually related to the status of "practical" and "theoretical" in the eyes of the community.

(ix) Norway and Sweden and to a certain extent USA and Canada are attempting to address this problem at a conscious government policy level.

(x) The Norwegian and Sweden Upper Secondary Schools have a complicated system of lines and branches in different vocational areas but all students undertake a common core of general studies, transfer between branches is made as easy as possible and all branches contain the possibility of entering tertiary education as well as the workforce, apprenticeships or further training.

Examinations, Assessment and Certification

4.62 Of all the areas we examined in respect to curriculum, the most contentious and therefore the most varied in end product was examinations, assessment and certification. Our conclusions are as follows:-

(i) The assessment of student performance can be undertaken for a variety of purposes and the purpose for which it is made is a major influence on the type of assessment used. The variety of procedures is set out in para 4.45.

(ii) At the primary level, most countries use pupil assessment primarily for the purpose of diagnosis of difficulties and to establish the extent to which the goals of teaching are being met.

(iii) No country visited except Thailand and the City of New York use formal assessment of student performance for the purpose of promotion from one primary grade to the next or as a requirement to enter secondary level.

(iv) It is at the secondary level that the assessment of student performance assumes a role of greater importance and attendant controversy in all of the countries visited.

(v) In most countries some form of student assessment is carried out at the end of the compulsory phase of secondary schooling, in most cases to provide a record of student achievement, and in Thailand and France as a basis for selection for upper secondary schooling or allocation to different types of upper secondary school. Most assessment at this level is internal. The USA and Canada do not carry out assessment for certification at this stage, although Canada issues a certificate recording achievement to all students who do not complete the full secondary course.

(vi) The UK remains the country most wedded to the idea of external examinations as a basis for certification at the end of compulsory schooling.

(vii) As school retention to the post-compulsory years increases the element of selection as a component of the rationale for assessment and certification decreases.

(viii) There is a wide range of practices in the various countries in respect to providing a record of school achievement and a basis for selection for further education at the end of the post-compulsory schooling. (see para 4.52.)

(ix) The examining and certification procedures at the end of post-compulsory schooling may also be categorized according to whether they rely on external standard examinations or internal assessment in individual schools

(x) For the purposes of post-compulsory school graduation and certification of achievement internal school assessment is the most common form used.

(xi) External, centrally administered examinations are most commonly used for tertiary entry purposes.

(xii) There are problems associated with this dichotomy. The desire to seek tertiary entry whether inspired or under parental and social pressures leads many students to concentrate on the academic subjects whether they are appropriate for the student or not.

(xiii) Canada and the USA and particularly Norway and Sweden have attempted to develop a concept of secondary schooling which is inclusive of all students and provides for assessment which includes the theoretical and the practical, the academic and the vocational within a single framework.

(xiv) While there are still problems associated with these approaches, notably in the school/tertiary interface, the philosophy behind developments in these countries appears to be most consistent with the idea of a universal, and universally rewarding upper secondary schooling which is the basis of current policy directions in Australia.

SUGGESTIONS

4.63 It was not our intention in this report to carry out an intensive survey of the Australian or Victorian situation in respect to curriculum, nor to present recommendations arising from such a survey. Our emphasis has been on "international perspectives" but it is obvious from the conclusions which we have reached that possible lines of action or suggestions for consideration in Victoria delineate themselves.

4.64 Current education policies in Victoria emphasize "participation", or the provision of a full and satisfying primary and secondary education for all and the overlapping concept of "equity", or ensuring that social or economic disadvantage is overcome to ensure participation by all. In contrast to countries where the goals of the state predominate or where the perpetuation of privilege is a non-admitted concommitant of educational aims and practices, the philosophy in Victoria is directed towards personal fulfillment and broad social benefits. In this sense, our present aims and philosophy are more akin to Norway and Sweden and to a lesser extent, Canada and the USA than to the other countries which were visited (para 457).

4.65 Our conclusion that "it cannot be assumed that all groups and individuals within a society necessarily accept the goals put forward in major policy documents or reflected in government action" is also of great importance in considering the position in Victoria. There is no doubt that politically-based theories can form a fertile ground for argument to the detriment of children's education. The starting point should be the educational needs of all children not those at either end of the spectrum i.e. not the most able and privileged or the less able and disadvantaged but all students.

4.66 At the primary school level in Victoria divergent views have found expression in arguments over basic skills. The view that they will be acquired naturally no longer holds credibility. All countries acknowledge that basic skills must be taught effectively (even to the extent of externally examining performance at year four and year seven in New York City primary schools). However, it is considered that there is a danger in defining the outcomes of primary schooling only in terms of success in a range of minimum basic skills. The successful inculcation of these basic skills should be subsumed within a rationale which provides for the student a commonly agreed upon cultural foundation and a range of skills and knowledge beyond the basic which are essential for living and working in the society. Giving attention to all children, including the disadvantaged of all types, is a strong majority view of teachers, parents and the community. Such general acceptance is no reason for reduction in effort. In fact, continued advance to the perceived goals will require constant vigilance in respect of adequate financial provision for primary school education.

Suggestion One

Successful inculcation of basic skills should be a major aim of our primary schools but should be subsumed within a rationale which provides for all students a cultural foundation and range of skills and knowledge beyond the basic which are essential for living and working in the society.

Suggestion Two

Constant vigilence should be maintained to ensure that financial, physical and teaching resources are available for the achievement of the goals of primary education.

4.67 The compulsory level of secondary schooling is in almost all countries now regarded as part of a continuous process for all students beginning at the point at which they start primary school and building cumulatively on the knowledge and skills acquired at each year level. Selection processes for entry to the secondary phase of schooling, or for allocation to different types of secondary school have been abandoned. In almost all countries the curriculum at this level builds upon that of the primary school in providing studies in major aspects of the culture, including the national language, maths, scientific and technical studies, the arts and humanities, studies of society, and health and physical education. In recognition of the increased maturity of students at this level and the development of areas of interest, an increasing range of optional studies is also offered in most countries, allowing for the individual pursuit of interests in theoretical, practical or prevocational areas, and providing a basis for further studies at the upper secondary level.

4.68 Only in the UK and some states of Canada and the USA is 6 years primary plus 6 years secondary the main form of school organisation. Even in the UK, an increasing number of local education authorities are establishing four year comprehensive schools followed by two year 6th Form Colleges or Further Education Colleges. France has developed a four year comprehensive school called a "College" to precede the 2 or 3 year Lycee or the Vocational High School. Japan and Thailand have long had a 6-3-3 combination, the latter country organizing each stage as terminal. Sweden has a comprehensive school of 9 years including primary and Norway a Basic School of 10 years.

Suggestion Three

The world-wide movement is towards some form of comprehensive secondary school between primary and post compulsory schooling and the establishment of such a school of 4 years duration in Victoria should be examined.

4.69 The greatest need for an overall rationale for the curriculum is at the post-compulsory level, which in the past has been oriented towards a minority of students undertaking it for a narrow range of purposes, primarily tertiary entry. Since it is now considered, in Victoria as elsewhere, that a full secondary eudcation is desirable for all students, some reconsideration of the education offered at this level is necessary, and is currently being undertaken.

4.70 In some of the countries investigated (Britain para 2.103 - 2.104, France para 2.67-2.68, China para 1.39) there is a separation between the 'academic' and the 'vocational' at this level, undertaken by different groups of students, in some cases in different institutions, and leading to different forms of certification. There is a growing world-wide concern that such a procedure may close off options for many students, foster differences in public esteem, and be detrimental to the provision of a full and satisfactory education for students in both types of course. There is also the general argument that a narrow focus on specialized vocational skills may also be counter productive, since it is difficult to forecast demand for such skills. The rate of technological change may render them subject to rapid obsolescence, and the creation of new kinds of enterprise and employment may be influenced by the acquisition of skills and knowledge which are broadly generic rather than fitting any specific occupation category.

4.71 Just as the goals of compulsory secondary education are met by the Basic School in Norway and the Comprehensive School in Sweden, the goals of large scale participation in post-compulsory schooling appears also to be addressed most directly in the measures adopted in these Scandinavian countries (paras 2.37 - 2.45 and 2.58). In these countries the upper secondary school is designed as comprehensive. The curriculum is divided into branches or sectors relating to broad vocational and intellectual areas, but all contain a common element of cultural foundation, there is an effort to combine the theoretical and the practical, transfer between branches is facilitated, options are kept open, and all branches allow for a concentration on practical work leading to employment or more theoretical studies leading to tertiary entry. The recent Ministerial discussion paper, "Post-Compulsory Schooling in Victoria" (119) endorses developments based on principles simlar to these, and our investigations would indicate that such principles may provide an effective rationale for the education of all students in the post-compulsory age group.

4.72 Reference has been made (para 4.63) to the fact that current politically-based antagonisms which make reference to "elitism", "egalitarianism", "mediocre lowest common denominator", or "maintenance of privilege", all beg the question and are conservative in endeavouring to maintain or create a positon at either extreme of possibilities. Continuation of such extreme points of view could be extremely dangerous for government schools, if they come to be seen as the repository of the philosophy which emphasizes care for the disadvantaged alone, to the neglect of the academically inclined. Despite the disastrous effects on some individual students of being forced inappropriately into strictly academic programs, many parents will seek what they regard as the desired road to leadership, power and wealth. If this is perceived to be the province of the non-government school, the danger becomes real for the development of a government school system responsible for the 'hewers of wood' and 'drawers of water' and a non government system producing the tertiary entrants, the professionals and the privileged. Such a position is untenable and our view is that provision must be made for all types of students in government schools. It is in this context that suggestions about the upper secondary school are made.

4.73 Attention has been directed to the multi-track systems of branches and lines in Norway, the sectors and lines in Sweden, and the common studies, areas of concentration and options in Ontario. They are outlined in detail in various publications (35, 36, 39, 40 42, 84, 93, 97) and reveal procedures for the education program which enable the objective of providing for all students to be met. There are two further aspects to be considered. The first relates to the work/training or education interface and the second to the expressed needs of youth outlined in our report on 'Youth Policies' (120).

4.74 There is no doubt that there are many students who will find their greatest satisfaction in a work related education experience. To keep such students wholly within an educational institution would be disastrous as experience with high compulsory leaving ages in the USA has shown. There are various patterns and combinations of work/learning situations which can be devised. Indeed, many of them are already in place in our schools and businesses. These should be encouraged for students with these preferences and the post-compulsory complex we are suggesting is a proper place for such provision. The provision of possibilities for part time and off campus study is also desirable.

4.75 The second aspect are those issues raised by youth themselves which we have published previously (120). There are "problems for youth associated with the nature of the curriculum, the custodial-care environment associated with formal schools and the expressed needs of youth for information, counselling and guidance in relation to education, work, housing, legal processes, health, human relations, social and recreational activities and financial support" (120). To cater for all students a place will need to be found for these types of activity.

4.76 When we consider the variey of programs and services which will flow from inclusion of these aspects required to meet the needs of all students, it is difficult to see how they can be accomplished in two years. Sweden recognized these realities and established its Integrated Upper Secondary School as a two or three year program for students aged 16 to 19 years and four year courses are also available. (para 2.58) In the Upper Secondary Schools of Norway two three and four year courses of considerable variety are also available (paras 2.37, 2.38)

4.77 Obviously we are looking at the development of a new form of educational institution at the end of ten years of schooling. It would include a system of interrelated courses to meet the needs of all students, which would aim to provide a sound liberal education, overcome social and economic disadvantage, provide for those with physical and mental difficulties, allow for late development of all types of talent and encourage those who are especially talented in various aspects of human activity. Institutions with such emphases would also have to provide other necessary youth services. As we have said they "could be open for extended hours and staffed with teachers, community education officers, social workers, welfare officers, youth workers, lawyers, doctors, nurses, counsellors, recreational leaders and financial advisers". (120) and capital expenditure could be kept to a minimum by the utilization of existing buildings. The emphasis for such an institution should be on quality and diversity to the extent that it becomes the most desired alternative for the youth of Victora.

4.78 As we have pointed out (para 4.71) this close survey of curriculum practices in a range of countries has identified the Scandinavian countries as most in tune with current political and social emphases in Victoria. They are also more advanced than we are in developing structures and programs to meet this philosophy. A visit from a Victorian delegation including an educational administrator, teacher, parent, an educational policy analyst, teacher unionist and a member of the community to examine the schools we have described in Norway and Sweden would be of great value in the current debate on the future organization of our schools.

Suggestion Four

Serious consideration should be given to the development of a post-compulsory educational complex to follow the proposed four year comprehensive secondary school.

Suggestion Five

The proposed post-compulsory educational complex should cater for all students in a carefully planned curriculum

which maintains options, meets student needs, caters for the disadvantaged and encourages the academically inclined.

Suggestion Six

As the proposed post-compulsory educational complex will cater in different ways for all students, it will also require youth services for the provision of information, counselling and guidance concerning education, work, housing, legal processes, health, human relations, social and recreational activities and financial support and should be staffed accordingly.

Suggestion Seven

As it is difficult to see how all the proposed programs can be provided within two years, consideration should be given to establishing a variety of two, three and four year courses, not all institutionally based, which will meet the variey of needs exposed.

Suggestion Eight

As Norway and Sweden have been identified as in tune with current political and social emphases in Victoria and more advanced in developing structures and programs to achieve their objectives, a representative Victorian delegation should visit these countries to gather information which would be of great value in the current debate on the organisation of our schools.

4.79 If our goal is to provide a full primary and secondary education for all students, there would appear to be little reason for competitive assessment of pupils' progress in the compulsory phase of schooling, since it is not used as a basis for selection of any sort. However, student assessment at these levels is regarded as important and useful as an indication of the success or otherwise of particular teching strategies and as a diagnostic tool to determine where there are difficulties to be overcome for individual students.

4.80 At the end of secondary schooling it is generally recognized that there is a need for some form of certification providing a record of student achievement which can be used by students for the purposes of gaining employment or tertiary entry.

4.81 Some countries have dual forms of examination and certification at this level, usually providing either a vocational certificate to be used for gaining employment, or a tertiary entry qualification. Our investigations have shown, however, that where a dual form of certification is used, retention rates are generally not as high as in other countries, the curriculum leading to each type of certificate tends to be narrow, and the differential prestige afforded the two certificates often induces students to take inappropriate courses leading to failure.

4.82 A single form of certificate which records achievement in all areas, practical and academic, such as that adopted in Canada and the Scandinavian countries, appears to overcome these problems. Strategies need to be adopted, however, to ensure that the form of assessment used, and the type of certification resulting from it, provide full and consistent information so that where they are used for selection purposes, as in tertiary entry, appropriate and fair decisions may be made. There is also a need for some record of student achievement to be provided for those leaving without completing the full upper secondary course, both for the purposes of gaining employment and as a basis for continuing studies at a later date should this be desired.

4.83 These findings from other countries are in accord with the conclusions reached by the discussion paper "Ministerial Review of Post-Compulsory Schooling", (119). In this paper, it is suggested that a single credential, providing an inclusive profile of student achievements, should mark the successful completion of twelve years educational participation. The credential would represent a specified number of units spread over two years and across major curriculum areas, including a core of common units and beyond this, broad vocational specialisms. Students would be able to take more or less than two years to complete the credential without penalty, and those leaving at any point should do so with credits towards the credential which could be used a basis for the resumption of studies. Within overall guidelines, schools should have the maximum flexibility and play a major role in assessment. It was recognized in the paper that there is no easy solution to the problem of using the same credential as a qualifiction for tertiary entry and as a general certificate of achievement, but it was considered that both of these purposes should be kept equally in mind.

Suggestion Nine

Competitive assessment should not be used in the compulsory stages of schooling, but teachers should regularly evaluate the effectiveness of their teaching programs and strategies, and develop effective means of diagnosing student difficulties.

Suggestion Ten

Students leaving at any stage after the completion of the compulsory phase should be provided with a descriptive profile of their school achievement, which would include any credits obtained in post compulsory education.

Suggestion Eleven

A single form of certification should be provided for students successfully completing a course of post-compulsory educational participation. This certificate should provide full and consistent information about student achievement in all areas of study undertaken. Accreditation procedures for courses should be such as to ensure quality and consistency in standards, so that tertiary institutions and employers have reliable information on which to base their selection criteria.

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CHAPTER FOUR

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